





# Building an Ocean Dream

2017 Social Responsibility Report



Explanation: The ocean embraces mountains and rivers. Thousands of rivers flow into the sea endlessly. COSCO Holding company represents the power of our country, and people pin their hopes on its development. Therefore, we should keep sailing in the waves and wind to build an ocean dream. We also adhere to the principle of sustainable development and he humble to the development of social, environmental and economic. Only in this way, can we win the recognition of our customers.

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——"Giving full play to synergy advantages of shipping value chain and building the whole supply chain."



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# ABOUT THE REPORT

#### Time frame

January 1st, 2017 to December 31st, 2017

#### Release cycle

Reporting period covered: January 1st to December 31st, 2017

#### Release cycle

The Social Responsibility Report is released on an annual basis. Last report was released in March 2017, and this report was released in March 2018.

#### Guidance

Hong Kong Stock Exchange, Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited

#### Scope

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The Report covers two subsidiaries, namely COSCO Shipping Lines Co., Ltd and COSCO Shipping Ports Co., Ltd. and their affiliated subsidiaries in the financial reports. If there are special circumstances, there will be a description of the specific data statistics in the corresponding section.

#### Definitions

For the convenience of presentation and reading, in this Report, the term "COSCO Shipping Holdings Co., Ltd." is referred to as "COSCO" or "We"; "COSCO Shipping Corporation Limited" is referred to as "COSCO Shipping Corp." or the "Corp."; "COSCO Shipping lines Co., Ltd." is referred to as "COSCO Shipping Lines" and "COSCO Shipping Ports Co., Ltd." is referred to as "COSCO Shipping Ports".

#### Data Declaration

The data sources include the public data from the government, COSCO's internal statistical statements, third party questionnaires, and interviews. We assure that the content of this report is free from any false records, misleading statements or major omissions.

#### External Assurance

To ensure the accuracy, comparability, timeliness, clarity, and reliability, we specially invite DNV GL management services group as the assurance party of this report.

#### Access channels

You can visit the website of Hong Kong Stock Exchange (www.hkex.com.hk), or COSCO's website (www.chinacosco.com.cn) to download the electronic versions in both Chinese and English.

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# Statement of the Chairman



#### Dear shareholders,

First of all, on behalf of the Board and the management of COSCO SHIPPING Holdings Co., Ltd., I would like to express my sincere gratitude to all our shareholders and customers around the world for their continuous attention, rust and support to COSCO SHIPPING Holdings. Meanwhile, I would also like to thank all of our staff, onshore and offshore, for their dedication and devoted efforts over the years in helping COSCO SHIPPING Holdings make new achievements.

In 2017, with a broad-based recovery of the global economy and increasing demand for container shipping services, the landscape of the container shipping industry was reshuffled and the service quality and stability of liner companies were improved significantly. According to statistics from a number of research institutes, the growth of shipping demand has outpaced the growth of shipping capacity in the global container shipping industry for two successive years, which mitigated the contradiction between supply and demand and drove market freight rates to bottom out. In 2017, the average value of the China Containerized Freight Index (CCFI) was 820 points, representing an increase of 15.4% as compared to the same period of last year.

In 2017, COSCO SHIPPING Holdings actively seized opportunities brought by the market pickup to focus on growth by promoting efficiency and innovation, and achieved further synergetic effect by continuing to deepen reform with the combined effect from a number of internal and external positive factors. During the Reporting Period, the Company turned into profits from losses with a significant improvement in operation efficiency. In 2017, the Company recorded net profit attributable to the shareholders of the Company of RMB2.66 billion.

COSCO SHIPPING Lines, a wholly-owned subsidiary of the Company, and COSCO SHIPPING Ports, a non-wholly owned subsidiary of the Company, achieved better operating results in 2017. COSCO SHIPPING Lines achieved an increase in both volume and price and completed a shipping volume of 20,913,746 TEUs, representing an increase of 23.7% as compared to the same period of last year; the average income per TEU was RMB3,723, representing an increase of 11.1% as compared to the same period of last year. Meanwhile, the Company continued to explore the potential of cost synergies and achieved remarkable results with a year-on-year decline of 0.9% in average cost per TEU in spite of a sharp increase in fuel price. In 2017, COSCO SHIPPING Lines recorded net profit attributable to the equity holders of the parent company of RMB156 billion, representing an increase of RMB3.5 billion as compared to 2016. In 2017, the total terminal throughput of COSCO SHIPPING Ports was 100,202,185 TEUs, of which the total terminal throughput in overseas regions was 18,400,664 TEUs, representing an increase as high as 38.7% as compared to the same period of last year. In 2017, COSCO SHIPPING Ports recorded net profit attributable to the equity holders of the parent company of RMB3.29 billion, representing an increase of RMB1.50 billion as compared to 2016.

#### 2017 is a critical year for implementing the strategies of COSCO SHIPPING Holdings. During the year, the holding headquarters of Company continued to boost the construction of "four platforms", while COSCO SHIPPING Lines and COSCO SHIPPING Ports put proactive efforts and achieved good results in implementing their operation strategies.

The holding headquarters of the Company is a platform of strategic guidance, capital operation, compliance management and collaborative service for COSCO SHIPPING Holdings. In 2017, in line with the "6+1" strategy of China COSCO Shipping Corporation, the Company formulated its 2020 strategic planning with a clearer roadmap for development and completed a series of major asset acquisitions and capital operation projects, while COSCO SHIPPING Lines and COSCO SHIPPING Ports completed their global business deployment gradually with significant increases in both operation results and market capitalizations, which laid a solid foundation for their future development.

COSCO SHIPPING Lines adhered to its core strategy of "expanding business scale, taking part in the globalization, focusing on customers, lowering costs and enhancing the capability to provide customers with full trip transportation solutions, endeavored to further enhance its revenue management capability and made continuous efforts in building up a world class liner company with international competitiveness. During the Reporting Period, COSCO SHIPPING Lines further expanded its business scale, enhanced its position in the industry and continued to optimize the global layout of its shipping routes. As at the end of 2017, the Company owned and operated 360 container vessels with a total capacity of 1,819,091 TEUs, representing a yearon-year increase of 10.3%, and ranked 4th in the world in terms of shipping capacity. The

OCEAN Alliance came into operation on 1 April 2017. As an important member of the OCEAN Alliance, the Company is committed to provide shipping services with higher frequency, larger scale, broader coverage and higher efficiency. In view of the changes in the landscape of global trade and economy, the Company made efforts to strengthen its business in the eastern and western major routes markets, enhance its shipping capacity in emerging and regional markets and further optimize the layout of its shipping routes; continued to boost the construction of the global standard customer service process, enhance its digitalized customer service capability and promote the convenience and efficiency of its services; continued to optimize its shipping networks and fleet structure, enhance its container management capability and reinforce supplier and procurement management so as to gain further synergetic effect and implement its low-cost strategy; and endeavored to upgrade its "end to end" full trip shipping service capability and meet the higher demand of customers, and thus further enhanced its operation and service capabilities in the global supply chain.

By adhering to the strategies of "making globalized deployment, improving collaboration among container ship fleets and reinforcing control and management capabilities on port and terminal businesses", COSCO SHIPPING Ports made efforts to boost the globalized distribution of its terminals, further reinforced its control over terminal assets and endeavored to improve the operation efficiency of its terminals. The terminal network of the Company covers the top five coastal port clusters in China as well as Hong Kong, Taiwan, Southeast Asia, Europe, Mediteranean, Middle East and other regions in the world. In 2017, the Company had 35 ports in operation with a total annual capacity of 102,720,000 TEUs; the Company had a total of 86 berts in operation for bulk cargoes with a total annual capacity of 262,670,000 tons.

#### In 2017, COSCO SHIPPING Holdings made in-depth efforts to carry out China's Belt and Road Initiative by actively participating in the construction of logistics channels and logistics nodes along the Belt and Road and boosting the interconnection among the Belt and Road countries and regions with an aim to meet the increasing demand of customers for cross-border intermodal transportation.

The Company made positive progress in the construction of the logistics channels along the Belt and Road. About 180 container vessels with a total capacity of 1,150,000 TEUs were deployed along the Belt and Road, accounting for approximately 62% of the Company's total container shipping capacity. By consolidating its global shipping route networks, the Company not only enhanced its service frequency and efficiency along the 21st Century Maritime Silk Road, but also connected the shipping routes along the 21st Century Maritime Silk Road with other important emerging regional markets such as America, West Africa, Caribbean and North Europe to form a more comprehensive and balanced globalized network layout. The Company took an active part in the construction along the Silk Road Economic Belt. In 2017, the Company had more than 150 sea-rail container transportation routes in operation, covering more than 100 major ports and hinterland stations across 27 provinces, autonomous regions and centrally administered municipalities. The Company continued to strengthen the position of Piraeus Port as a transportation hub and accelerate the development of China-European Sea-rail Express business. In 2017, the freight volume completed by China-European Sea-rail Express increased by 134% as compared to the last year. On 5 January 2018, the first regular train of the China Railway Express to Russia of COSCO SHIPPING Lines departed Tianjin and headed for Moscow. It is the first international regular train operated by the Company, indicating that the Company is able to, by leveraging on a rich network of container liner shipping routes and intermodal transportation services at home and abroad, build up a more complete comprehensive logistics system to provide customers across the world with end to end supply chain service solutions and play a positive role in the development of foreign trade and the construction along the Belt and Road.

The Company achieved fruitful results in the construction of logistics nodes along the Belt and Road. On 20 January 2017, COSCO SHIPPING Ports entered into a strategic cooperation agreement with Qingdao Port International and held 18.41% equity interests in Qingdao Port International; on 15 May 2017, COSCO SHIPPING Lines acquired 24.5% equity interests in KTZE-Khorgos Gateway LLP; on 31 October 2017, COSCO SHIPPING Ports completed the acquisition of 5% equity interests in Noatum Port Holdings, S.L.U., a port company in Spain; on 5 November 2017, COSCO SHIPPING Ports commenced the construction of the terminal in Abu Dhabi; on 30 November 2017, COSCO SHIPPING Ports completed the acquisition of additional equity interests in APM Terminals Zeebrugge NV in Belgium and took full control of its operation.

# In 2017, in line with the trend of industry consolidation, COSCO SHIPPING Holdings announced two significant capital operation projects which were in smooth progress.

COSCO SHIPPING Holdings published an announcement on 9 July 2017 that a subsidiary of the Company and a subsidiary of Shanghai International Port (Group) Co., Ltd ("SIPG") had made a preconditional voluntary general offer to all shareholders of Orient Overseas (International) Limited ("OOLL") at an offer price of HKS78.67 per share. If the acquisition is successfully completed, the scale of the shipping capacity (including orders) of COSCO SHIPPING Holdings will exceed 2.9 million TEUs and its leading position in the global container shipping industry will be further enhanced. COSCO SHIPPING Lines and OOIL will continue to operate under their respective brands, providing container transport and logistics services.

By leveraging the strengths of each company and achieving synergies, the shipping capacities and shipping routes networks, management experiences and information technologies of both companies will be complementary to each other and the businesses will enhance their operating efficiencies and competitive positions to achieve sustainable growth in the long term.

On 30 October 2017, the Company announced a proposal for nonpublic issuance of A Shares with an aim to enhance the core competitiveness of its principal businesses by utilizing the capital market. The Company intended to issue a maximum of A Shares not exceeding 20% of the total share capital of the Company prior to the issuance or approximately 2,043 million A Shares, which would raise gross proceeds of not more than RMB12.9 billion. Such proceeds would be used as payment for 20 container vessels under construction. These ultra large container ships adopted advanced and environment-friendly designing concept and shipbuilding technology and would serve an important carrier of the Company to enhance customer service capability and enrich service product offerings and would play an important role in improving the Company's overall competitive strengths. Once delivered and put into operation, these ships will effectively enhance the percentage of shipping capacity occupied by our own vessels, further reduce the average age of our

## Statement of the Chairman

# Introduction

#### 1. About Us

COSCO Shipping Holdings Co., Ltd. (COSCO), a subsidiary of COSCO Shipping Corporation Limited (COSCO Shipping Corp.) which holds 45.47% interests of COSCO, was set up on March 3rd, 2005, COSCO successfully listed on the HKEX on June 30th, 2005 (Stock Code: 01919), and on Shanghai Stock Exchange on June 26th, 2007 (Stock Code: 601919). We are committed to becoming 'the world's first tier container shipping and wharf investment management suppliers'. Currently we hold 100.00% shares of COSCO Shipping Lines and 46.72% shares of COSCO Shipping Ports.

The business operated by COSCO Shipping Lines and COSCO Shipping Ports are two core business segments of COSCO Shipping Holding Company. COSCO Shipping Lines is the fourth largest container shipping company in the world, and the largest one in Asia. It mainly engages in international and domestic marine container shipping services and related businesses. Our operating principle is "We Deliver Value'. COSCO Shipping Ports is the second largest container terminal operator in the world which mainly engages in container terminal businesses. The operating principle is 'The Ports' for All'.

### COSCO Shipping Lines :

¥ 60.31 Billion

30.40%

Revenue	Increased from 2016		Revenue		Year on year growth rate	
¥ 86.75 billion	¥ 20.17 billior	٦	¥ 4.3	6 billion		15.82%
Handled heavy container 20.91 million TEU	Year on year growth rate <b>23.73%</b>		Throughput of container ports (million TEU) <b>17.35</b>		Year on year growth rate <b>10.28%</b>	
Average revenue of signal container on international lines	Year on year growth rate		genera	Jhput of the Il cargo n tons)		Year on year growth rate
¥ 4,641.34/TEU	12.08%		15.53			5.03%
Average revenue of signal container on domestic lines	Year on year growth rate		acquisiti	ig the impact of tl on of NOATUM F brugge Port, reve d	Port	Revenue growth rate
¥ 1,632.13/TEU	3.22%		¥247	<sup>7</sup> million		7.28%
Harket Price :						
Market capitalization in 2017	Year on year growth rate	Growth r in A Shar	uice .	Growth rate n H Shares		verweight" and "bu ing accounted for

29.20%

COSCO has realized a revenue ¥ 90.46 billion from continuing operation in 2017, increased by ¥ 19.30 billion over the same period of last year, an increase of 29.45%. The details are as follows



COSCO Shipping Ports:

48.71%

71%

#### Awards in 2017

★ In 2017, we became the one and only company listed in Forbes as the 'World's Most Trusted Companies of the Year 2017' and arouse the attention of the mainstream media and capital markets

★ During the 2017 Golden Hona Kong Stock Awards selection, we won the "Most Committed Listed Company Award"

vessels, optimize the layout of the Company's fleet, improve the structure of the Company's vessel assets and drive the Company to participate in the construction along the Belt and Road with a larger ship fleet and optimized vessel structure and play a better role in boosting global trade flow.

#### In 2017, COSCO SHIPPING Holdings adopted a concept for sustainable development and put vigorous efforts in fulfilling social responsibilities and building up positive enterprise brand and public image.

COSCO SHIPPING Holdings adopted a concept for environmentfriendly development to protect ecological environment by promoting and applying advanced technologies, and made good progress in environment protection works, such as applying energy saving and emission reducing technologies and making better use of resources, to effectively mitigate the impact of its business operation on the environment and reduce the emission of carbons; took an active part in promoting the investor protection program sponsored by the China Securities Regulatory Commission, which was well recognized by relevant regulatory authorities; and carried out accurate poverty alleviation programs by pairing up with poor regions for giving support and assistance, with more than RMB 4 million of special funds invested in 2017 to construct rural and urban infrastructure and education facilities for a number of deprived regions in China. Ports and agency companies of the Company across the world provided job opportunities for local people. In 2017, the Company created 4,300 direct job opportunities and thousands of indirect job opportunities in overseas regions. In 2017, the Company sponsored a program named "Tour of COSCO SHIPPING" with the Endeavour Education Centre Limited and other institutions in Hong Kong, organizing teachers from primary and middle schools in Hong Kong to visit terminals, ships, shipyards and other sites in the mainland relating to the Belt and Road initiative with an aim to enhance the sense of national pride of Hong Kong youngsters.

By virtue of the Company's efforts in serving the development of global trade and economy and fulfilling social responsibilities, COSCO SHIPPING Holdings ranked 104th among the 2,000 renowned listed companies named in the list of the World's Top Regarded Companies, released by Forbes in October 2017; ranked first among the domestic listed companies named in the list; and ranked first among the shipping companies named in the list. In January 2018, COSCO SHIPPING Holdings was honored as the Most Socially Responsible Listed Company in the "Golden Hong Kong Stocks Awards".

Looking forward to 2018, the world economy will maintain a good momentum for recovery and China will continue to deepen its economy transformation and high quality development. With steady progress in carrying out the Belt and Road initiative, new cooperation results and opportunities are emerging. However, due to intensified competitions in world trade, policy adjustments in major economies and the uncertainties derived therefrom, the risk of the spread of trade protectionism is increasing. Besides, there are still uncertainties in the market as excessive shipping capacity remains in some sectors of the container shipping industry and concerns over the concentrated addition of new shipping capacity in the first half of the year still exist. However, we expect that, due to in-depth consolidation of the container shipping industry, the overall operation in the market will focus more on enhancing customer service quality and improving service products, rendering competitions in the market more rational. COSCO SHIPPING Holdings will adhere to its established strategies, seize opportunities, enhance its competitive

higher quality and efficiency in the course of upgrading and transformation. For container shipping business, the Company will continue to build up a world-class liner company with international competitive strengths, continue to expedite the implementation of its strategies, upgrade the Company's products gradually from "shipping routes" into "shipping routes + digitalized services + end to end solutions" and thus create value for customers. Firstly, the Company will continue to optimize and upgrade its global network layout of shipping routes and shipping capacity structure and explore new points for profit growth. Secondly, the Company will reinforce its marketing capability to provide strong volume support for its largescale development and realize continuous growth in both shipping volume and shipping capacity. Thirdly, the Company will expedite the construction of its digitalized shipping capacity, continue to enhance its digitalized customer service capability with a customer-centric and digitally-driven approach and explore the value of its system data to realize digitalized interconnection with customers. Fourthly, the Company will put vigorous efforts in the development of crossborder intermodal transportation and end to end service in hinterland, provide customers with diversified choices of services, build up a complete full trip supply chain solution and enhance the overall revenue of the Company. Fifthly, the Company will continue to boost the overall improvement of its refined corporate governance, and continue to explore the potentials to reduce costs and enhance efficiency by means of optimizing the network layout of its shipping routes, container management cost control, fuel cost control, supplier management and operation management.

strengths and endeavor to realize sustainable development with

For terminal business, the Company will optimize its global layout with a focus on the Belt and Road, further expedite the deployment of its strategic presence along the Maritime Silk Road, enhance control capability, extend services along the industrial chain and strengthen its core competitiveness. In this year, the Company will make full use of the synergetic effect between its two major business segments, i.e., the container shipping business and terminal business, and the OCEAN Alliance, grasp the huge market share of the OCEAN Alliance, reinforce its service capability for shipping alliance and shipping companies, continue to improve the global network layout of its terminals, seek opportunities for investing in ports in Southeast Asia, South Asia, West Asia, Africa, America and Latin America and boost its terminal projects in due course. Meanwhile, the Company will also continue to boost its domestic ports consolidation projects, and seek to cooperate with port groups with an aim to strengthen and expand its terminal business in multiple aspects, increase its market share, optimize its terminal assets and operation efficiency and enhance the overall profitability of the terminal business.

In the new year, COSCO SHIPPING Holdings will join hands with elites from various fields and continue to overcome all kinds of challenges in constantly improving the operation standard and corporate governance of the Company with a concept for sustainable development and endeavor to build up the Company as a first-tier provider of container shipping and terminal investment and operation services in the world, provide customer with better services and create greater values for shareholders.



"buy"

# Enterprise Introduction

#### 2. Construction of Internal Governance and Sustainable Development System in the Process of Enterprise Reforming

In 2016, we set high standards for corporate governance and have strict enforcement attitudes. All of our senior management has endeavored to implement corporate governance in accordance with the Corporate Governance Code in Appendix 14 in the Listing Rules of HKEX, as well as the provisions in the Evaluation Method for Information Disclosure of Listed Companies in Shanghai Stock Exchange (revised in 2015). We are committed to continuously improving corporate governance practices, ensuring the establishment and implementation of appropriate business oversight and management procedures, and conducting periodic reviews of the procedures to meet the responsibilities towards our shareholders.

To ensure the achievement of strategic objectives, we establish

rigorous governance structure according to the requirements of modern enterprises. In our enterprise structure, the shareholders' meeting is the supreme decision-making body. The Board of Directors, which is in charge of daily business, consisting of 13 members, 4 of them are executive directors, 5 of them are nonexecutive directors and the rest are independent non-executive directors. The Board of Supervisors is the supervisory body, and performs dual supervisory on both the Board of Directors and the management. In addition, we have established six Professionals Committees to actively play important roles in preventing, controlling business and compliance risks. The company's governance structure is illustrated below.

#### Organizational Structure of COSCO Holding Company in 2017





We maintain close communication with the investors of the capital market. In 2017, we successfully organized 19 domestic and overseas roadshows, participated in 191 investment meetings, which allowed us to have contact with 1,080 investors and analysts. We also visited 10 strategic investors and always attach great importance to the communication and protection of small and medium-sized investors. We interacted with social media and held three media forums, a media briefing, and a ship open day activity. We created a positive and objective corporate brand image to investors through these communication activities.

For the sustainable development of COSCO, we developed corresponding policies and requirements in our container shipping business, in order to set up the standards of quality, environment, safety, and society which become part of our code of conduct.

#### Sustainable Development System of 2017

Sustainable Development System	We established the quality management system, environment management system, occupational health and safety management system and energy management system	GB/T19001-2016/ISO9001:2015 Requirements for Quality Management Systems, GB/T24001-2016/ISO14001:2015 Regulations and Guidance on Environment Control System GB/T28001-2011/OHSAS18000:2007 Regulations on Occupational Health and Safety Management System GB/T23331-2012/ISO50001:2011 Requirements for Energy Management System
	We established the social responsibility, risk and internal control management system	ISO26000 Guidance on Social Responsibility ISO31000 Principles and Guidance on Risk Control Fundamentals on Enterprise Internal Control issued by the five Ministries of the PRC
	We develop the Social Responsibility Management Manual	ISO26000 Basic Principles of the Global Compact

# Data Disclosure of 2017

In 2017, our revenue is ¥ 90.46 billion, the annual profit is ¥ 2,661,936 thousand, customer satisfaction index is 87.94, the number of suppliers is 7,863, total number of employees is 37,660, and the money spent on poverty alleviation was ¥ 4,631,394.5. The operating data of our two subsidiaries is as follows:



1,294,114<sub>1</sub>

2,758,617<sub>kg</sub>

238,782kg

102,720,000тец

Market Share 12.20%

# Topics of Interest Analysis

### 1. Topics of Interest Analysis

Based on the analysis on topics of interest, we can understand the concerns of the stakeholders, and define the direction in the process of editing the Report. In 2017, we issued 982 questionnaire surveys covering 10 stakeholders including government agencies, suppliers, communities, business partners, trade unions, insurance and financial institutions, NGOs, customers and internal employees, and identified 29 topics. These 29 significant topics covered aspects of economy, environment, labor practices, human rights, society, products and services. Through the analysis on the findings from the surveys, we have identified 29 significant topics of interest in areas of economic, environment and society. We categorized them into three levels: light, medium and high and conduct further in-depth assessment.

Those topics that are of great concern to our stakeholders are important to us as well. The 10 most significant topics of interest will be discussed in details in this social responsibility report of 2017.

### Importance matrix of topic of interests in economic social and environmental aspects of 2017



In terms of economics, we mainly focus on economic performance, indirect economic impact and customer services. In 2017, the overall economic performance was recovered and improved over previous years. The government, customers and employees are very concerned about our performance. In addition, for many overseas regions, we have strengthened infrastructure investment in shipping lines and wharves, which has had a great indirect positive impact on local economies.

#### Environmental aspect:

In terms of environment, we mainly focus on energy, biodiversity, waste water and garbage. The biggest cost for shipping companies comes from energy consumption. The biggest impact on the environment comes from pollutants generated by such consumption, such as waste gas and oily water. That is why it is the most important environmental issue for shipping companies and for their stakeholders. In addition, alien species invade through the ballast water generated by shipping activities, which would impact the diversity of marine organisms negatively. Therefore, proper management of ballast water handling is an important issue for shipping enterprises.

#### (A) Social aspect

In terms of society, we mainly focus on occupational health and safety of our staff, anticorruption and community involvement. Sailing on the sea and handling containers at the ports are risky. It is very important to protect our employees which is an issue they concern most. Apart from the health and safety of employees, anti-corruption is one of the hot topics for stateowned enterprises. Every employee must abide by national laws and should join the anticorruption campaign. The last topic is about how companies make contributions to the society. In this regard, we have done a lot and had many achievements.

### 2. Communications with Stakeholders

Supplier evaluation

Trusts and supports from the stakeholders are fundamental to COSCO's continuous development. We have established the various stakeholder channels to communicate with the 10 groups of stakeholders actively, including the government agencies, suppliers, communities, business partners, trade unions, insurance and financial institutions, NGOs, shareholders, customers, and employees.

Classification of topics	Topics of Interests	Stakeholders Engaged	Responses	Corresponding Chapter
⇔ Economic Topics	<ul> <li>Economic performance</li> <li>Market performance</li> <li>Indirect economic impact</li> <li>Customer satisfaction and complaints</li> <li>Customer privacy</li> <li>Customer safety and health</li> </ul>	Government Customers Partners Employees Shareholders Insurance financial institution	Implement leading cost management strategy     Enhance capital management     Realize synergy effect     Build the whole supply chain     Provide employment opportunities     Implement customer satisfaction     Establish customer privacy mechanism     Improve customer complaint mechanism     Strengthen dynamic monitoring of ships' daily     activities and shipping schedule management     Implement measures to prevent navigation risk	<ul> <li>Promote the development of 'One Belt and Road' initiative</li> <li>Provide high quality service</li> <li>Ensure the safety of navigation</li> </ul>
Economic Topics 🚓 Environmental Topic	Water     Energy     Biodiversity     Emission     Effluents and waste     Environment protection     expense     Environmental impact	Government Community Non- government organization Shareholders	Implement energy conservation mechanism     Strict management on emissions and sewage     Standard management of ballast water     Green ship recycling     Establish oil residuals emergency plan     Establish evaluation mechanism on     environment and energy	<ul> <li>Pursuing green voyage of shipping and establishing low carbon ports</li> <li>Protecting marine biodiversity</li> <li>Green Ship Recycling and Environmental Processing of Voyage Waste</li> </ul>
Social Topic	<ul> <li>Employment</li> <li>Industrial relationships</li> <li>Equal remuneration for male and female employees</li> <li>Training and education</li> <li>Occupational Health and Safety</li> <li>Diversity and Equal Opportunity</li> <li>Mechanism for labor tribunal</li> <li>Non-discrimination</li> <li>Child labor</li> <li>Forced labor</li> <li>Appeal of human rights</li> <li>Community involvement</li> <li>Anti-corruption</li> <li>Business compliance</li> <li>Procent behavior</li> </ul>	Government Employees Labor union Community Suppliers Non- government organization	<ul> <li>Hold Trades Union Congress</li> <li>Implement employee satisfaction survey</li> <li>Comply with national labor laws and regulations</li> <li>Enhance staff training</li> <li>Improve wage security mechanism</li> <li>Estabilish multilevel communication channels</li> <li>Enrich employees' life</li> <li>Implement of poverty alleviation</li> <li>Organize community welfare activities</li> <li>Strictly enforce audit system</li> <li>Implement and handle reporting complains</li> <li>Estabilish equal procurement mechanism</li> <li>Expand opportunities for cooperation</li> <li>Implement strict assessment and audit on suppliers</li> <li>Enhance local procurement</li> </ul>	<ul> <li>Protect the rights of employees</li> <li>Promoting the development of local community</li> <li>Compliance management</li> </ul>

# Economic Topic

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DF4000229

班列

Н ДАМЫТУДА

# Promoting the Development of the Nation's "Belt and Road Initiative"

连云港中哈国际物流 KTZ EXP

On May 14, 2017, the "Belt and Road Initiative" International Cooperation Summit was held in Beijing. The Summit brought together leaders from more than 30 countries and leading officials of the United Nations, the World Bank and the International Monetary Fund. During the forum, the President Xi Jinping of PRC delivered the speech regarding "Jointly Promoting the Construction of 'Belt and Road''. President Xi emphasized: "2017 is the fourth year of the 'Belt and Road' practice. Smooth roads creates prosperity in all sectors. The purpose and significance of the Belt and Road is to benefit the development of countries along it, and the prerequisite for development is the smooth flow of production factors."

As the world's fourth largest container fleet and the largest container terminal operator, we play an important role in the promotion of the "Belt and Road". By 2017, our land trains have covered many important nodes of the Silk Road Economic Belt, and our 116 routes have passed through the 21<sup>st</sup> Century Maritime Silk Road, with a capacity of 1 million TEU, accounting for 58.6% of the total capacity.

The "Belt and Road" route in Europe mainly consists of the northern and southern routes. The northern route uses in the Eurasian continental bridge as the main route, starting from the inland provinces of China and traveling westward through land transport, via Xinjiang, Central Asia and Russia to Europe. The southern route begins from the southern coastal cities of China, and reaches the Greek Port of Piraeus in the Mediterranean Sea. On the important nodes of the Belt and Road", we have made full efforts to build the China-Europe Land-Sea Express Route project with Piraeus Port as the transport hub port, and the China-Kazakhstan cross-border transport project with the Horgos-East Gate Land Port as the international logistics center.

In the following two chapters, you will be told about our efforts and achievements in the Port of Piraeus in Greece and the Horgos-East Gate Land Port in Kazakhstan. 中欧班列

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T he Horgos-East Gate Land Port is located in the Horgos-East Gate Special Economic Zone in Kazakhstan, and it is an important logistics transit point. This port is only 15 kilometers away from the Horgos Border in Xinjiang Province of China, 5 days drive from Lianyungang rail transport, and 9 to 10 days drive from European rail transport. The port mainly runs block container trains' international transit business, logistics, multimodal transport, warehouse services and other businesses.

The Horgos-East Gate Land Port Project is the first cooperation project between China and Kazakhstan in building the 'Belt and Road Initiative', and it also perfectly aligns with Kazakhstan's new economic policy of 'Bright Path'. On the one hand, the development of Silk Road Economic Belt provides funds, talents, and technical support to the 'Bright Path' to a great extent. On the other hand, the Silk Road Economic Belt provides funds, talents, and technical support to the 'Bright Path' to a great extent. On the other hand, the Silk Road Economic Belt will assist in strengthening cooperation between China and Kazakhstan and other countries along the Silk Road, and promoting the process of regional economic integration. In June 2017, Chinese President Xi Jinping took a state visit to the Republic of Kazakhstan, and during this period, the leaders of China and Kazakhstan jointly promoted the start-up operation of the Dry Port project, which marked the formal formation of the pattern of China t Kazakhstan two-way convection transportation between Asia and Europe.

COSCO Shipping Corporation and Lianyungang Port Company have jointly promoted the rapid development of China-Kazakhstan crossborder transport channel with China-Europe block trains as carriers. As early as 2011, the China-Europe block trains started operation. Nowadays, the China-Europe block trains have accelerated reliance on guaranteed supplies brought by powerful route network of COSCO Shipping Lines and high-quality services provided by sea-rail transportation. Let's take the Lianyungang-Horgos line as an example. Two trains carrying forty to seventy 40-feet containers depart from Lianyungang to Horgos every week, and it only takes 7 days to travel the 4,200-kilometer journey to arrive at the destination. After that, the trains have a rail exchange at the Dry Port, and the cargos will be distributed to 34 cities in 12 European countries. It was hard to imagine such speed of transport and the coverage in the past.

The clients have tougher requirements on door-to-door transportation services under the fierce competition in global shipping. Therefore we actively build the sea-rail combined transportation services, and we will step up our transport capabilities in the inland areas on the premise of maintaining our maritime advantages. The door-to-door transport services through sea-rail combined transportation coincides with one of COSCO Shipping Lines' core strategies: "to enhance the ability to provide the solutions of entire transportation for clients". For that reason, during the process of implementing the Land Port Project, we actively cooperate with Lianyungang Corporation, China Railway Corporation, and Kazakhstan National Railway Company to play the strengths on shipping network, port area, domestic railway capacity and the assembling and evacuating capability of the Trans-Caspian railway. We aim to provide our customers with a global supply chain integrated service by improving every aspect of our entire transportation journey. We are delivering goods ranging from previous IT accessories such as mobile phones and computers to clothing, automobiles, food, and so on. In May, 2017, we successfully delivered the wheat from Kazakhstan to Lianyungang through the Horgos-Lianyungang route and then to countries in Southeast Asia through sea route.

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President XI suggested in a video link activity that." This new Asia-Europe land-sea combined channel, which is linked by Lianyungang-Horgos route, should be built to become a benchmark and a model project of the 'Belt and Road' Initiative." Therefore, we will support a perfect land-sea combined transportation system, hold the regional characteristics of the Land Port, utilize the strategic advantages from the partners, and make the Horgos-East Gate Land Port become a global logistics transit hub step by step. A journey of a thousand miles starts from the first step.



# Knowledge Tips: Make the railway transportation become perfect Asia-Europe block trains

Asia-Europe block trains are the container trains run by the international railway that travel among China, Europe and countries along the 'Belt and Road' under the conditions of fixed train numbers and routes. There are a total of three operation lines: the west line, the middle line, and the east line. The west corridor goes through the central and western regions in China and crosses the border of Horgos at Alataw Pass. The middle corridor goes through the northern areas and crosses the border at Erenhot. The east corridor goes through the southeast costal regions and crosses the border at Manchuria (Sulfen River). There has been a total number of more than 5,000 trains since Asia-Europe block trains started running in 2011.

Railway transportation has advantages in delivery time and shipping price comparing to sea and air transportation. In terms of price, a 40-feet container weighs about 9,600 kilograms. It costs about US\$3,000 by sea transport and US\$ 37,000 by air. While it costs US\$ 8,000 by railways, which is between the other two. In terms of speed, if sea transportation takes about 50 days, rail transportation can deliver within 12 days by arranging stocks properly at starting points and destination. This enables a huge increase in cargo's turnover rate and therefore helps the owner of the cargo gain the working capital. Cindy Miller, the Global Cargo Agency director of UP\$, considered that, the shrinkage of air transport capacity pushed small-sized and medium-sized cargo's owners to make a bet on Asia-Europe railways, and even turned railways as a permanent component of their transit of cargo.



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\*Time Comparison for 40 Inches Container

shipping network. We have opened up over 150 container sea-rail routes covering 27 provinces, municipalities, autonomous regions, and 91 main ports and inland stations. For instance, Qingdao-Zhengzhou block train has a route of 900 kilometers with Qingdao as the land-sea connecting point, and it realizes the connection between the continental Silk Road and the maritime Silk Road.

II The two-way and cross-border transport between China and Kazakhstan has greatly improved the trade volume between China and Kazakhstan. In the past, Kazakhstan mostly traded within the CIS. Now, the sea-rail intermodal transportation built by us promotes the trade between the two countries to a great extent through the container transport and the Asia-Europe block trains. We hope to import more energy, grains, beef, mutton, and dairy products from Kazakhstan. Most food in Kazakhstan is organic, especially dairy products. Their dairy cattle and goats are fed in a free-range way, and the protein content reaches 10%, which exceeds higher protein content of the same products in China.

#### -Guoming Fan, a Chinese staff of COSCO Shipping Lines

II Think about the hardship we experienced ten years ago when we sent off a train of goods to Central Asia! There are not enough trains to carry the clients' cargo. When the cargo got finally loaded on the train, there might be a traffic jam at the Alataw Pass. Now we have trains every week, and even every day in some places. As a staff of the Xinjiang Company, I am very proud of it? II

-Yu Tianxin, Assistant Manager of the Operating Center, Qingdao Branch, Xinjiang Company



### Piraeus Port accelerates the strategic layout of the China-Europe Land-Sea Express Line

Piraeus Port, the largest Greek seaport, is located on the south of Balkan Peninsula and north of Aegean Sea. Piraeus Port has a superior geographical location with its connection to the Atlantic Ocean in the west, to the Indian Ocean in the east, and to the Black Sea in the north. Piraeus Port is the closest base port in the Mediterranean Sea to the Suez-Gibraltar axis, and it is a natural harbor connecting Europe, the Mediterranean Sea, the Middle East and Africa



#### 1. Adopting the Strategy of Building Piraeus Port

We spare no efforts in promoting the development of Piraeus Port which is considered as a leading cooperative project between the two great ancient civilizations - China and Greece. At present, there are 7 direct east-west lines to Greece and over thirty 7000-to-14000-TEU container ships sailing across the Far East and Mediterranean regions regularly. In 2017, Piraeus Port became the second largest port of container transshipment in the Mediterranean region.

In 2017, during the meeting with Tsipras, the Prime Minister of Greece, Xi Jinping, President of the PRC, emphasized that, "China hopes to continue to cooperate with Greece and make Piraeus Port become the largest container hub port in the Mediterranean Sea, the bridgehead of the



sea-and-land transportation, and a global logistics center, as well as the pivot of the cooperation for the 'Belt and Road Initiative", which can bring more cooperation in multiple areas between us". In order to respond to the "Belt and Road" policy, we actively develop three major strategies on Piraeus Port:

 $\mathbf{0}$  We aim to make PCT become the most significant container transit center in the Mediterranean region.

PCT is realizing a virtuous cycle between attracting main lines and improving branch-line network. Currently, there are 10 main lines and 32 branch lines which regularly call at PCT, and they almost cover the whole area of the Mediterranean Sea and the Black Sea. There are almost 200 container ships, which call at PCT every month. So Piraeus Port has become the well-deserved center of container transport in East Mediterranean Sea.

The Piraeus Container Terminal keeps supporting us in pushing forward the project construction, and it not only provides us with funding, but also in the areas of technology and management. //

> -Antonios, Technical Service Project Manager of a Greek port construction company

/e aim to make PCT become the "South Gate" of Europe.

We connect the railway stations which go along the transit lines to the European railway networks, and we ship the cargo from the Far East to the central and north-western Europe through sea-rail intermodal transport. In December, 2014, Prime Minister Li Kegiang announced the plan to construct the "China-Europe Land-Sea Express Route" in Belgrade. The maritime portion of this express line is exactly the route from the beginning of the Silk Road to PCT, and the railway portion of the express line is the rail track which makes the PCT the sea-land connecting point and the starting point of the rail road to Central and Eastern Europe. Now, stable clients of the route in Central and Eastern Europe include many world famous companies, such as SONY and Hewlett Packard.

Aerial view of Piraeus port, Greece

We aim to make PCT become the most important logistics distribution center in Europe, the Middle East, and Africa.

We are devoted to make PCT a world-class logistics distribution center like the Port of Rotterdam and the Port of Hamburg. Since 2012, Hewlett Packard, Huawei, Gree Electric Appliances, British American Tobacco, Turkish VAKIKI, and many other world-class enterprises have established logistics distribution centers at PCT, and they have been well-operated.

It has not been always smooth during the process when we implement the development strategies of Piraeus Port. We encountered great resistance from the local society. However, after years of efforts, we are still striving to hold the state mission in our mind and move forward under the huge external pressure.



At the beginning, the Greek political authorities, including the Labor Department, Taxation, Environmental Protection, Security and other ministries and authorities, came to inspect us by turns. It was astonishing to inspect so frequently. Normally, Greek business experiences an inspection in several years on average, but at PCT, a variety of inspections were taken by different authorities every week.

Such frequent inspections indicted mistrust to COSCO Shipping Lines, and it created great pressure and negative feelings on our Greek employees. Therefore, our management team led our staff and actively cooperated with the Greek authorities inspections to make sure that we run business lawfully and legally at any time.

, Tsipras, the Prime Minister of Greece, appointed the Piraeus Bureau of Labor to carry out a special check on PCT to I abor law; and regulations. It turned out that PCT was a model in complying with labor laws and regulations. This all because 1 sipras insisted on supporting investment for COSCO Shipping times, and it was also a key to change the ter members who held negative attitude. This means that PCT eventually became a member of the Greek society.

-Zhang Anming, General Manager of COSCO Shipping Port (PCT ) Company

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Under the situation that the global shipping industry has been in downtrum and the economic environment has been getting worse in Greece, Piraeus Port was the champions in growth rate of handling capacity among the world's top 100 container ports in 2011 and 2012. The port won the 10<sup>th</sup> place on the same ranking list in 2013, and pioneered in the growth rate of handling capacity in 2014. After a temporary stabilization in 2015, it won the 38<sup>th</sup> place among the world's top 100 container ports, and achieved 19 percent of annual growth rate in 2017. Such outstanding performance is widely recognized in the global container ports industry.

### Case: PCT participated in the 82<sup>nd</sup> Thessaloniki International Fair

On September 9<sup>th</sup>, 2017, the 82<sup>rd</sup> Thessaloniki International Fair was opened, and Tsipras, the Prime Minister of Greece, had a picture with "Captain Panda" of COSCO Shipping Lines. On that day, Prime Minister Tsipras and several Cabinet ministers visited the exhibition of COSCO Shipping Lines, and listened to the President of PCT, Fu Chengqiu's introduction on the operations of Piraeus Port. Prime Minister Tsipras praised the development of Piraeus Port, and pointed out that the project of Piraeus Port strengthened the connection between China and Greece and had a positive impact on attracting investment in Greece.



#### 2. Accelerating the strategic layout of the China-Europe Land-Sea Express Route

We actively advocate the "Belt and Road" initiative, and work with the Austria National Railway Corporation and the German DB Schenker Rail to build the brand of regional rail-sea intermodal transport – the China-Europe Land -Sea Express Route by making Piraeus Port a hub. The historical mission of the China-Europe Land-Sea Express Route is to change the map of rail-sea intermodal transport in Europe, and make the China-Europe Land-Sea Express Route become the third trading channel between China and Europe, making it an important component of the Silk Road Economic Belt, and make great contributions to the Silk Road Economic Belt Strategy and the trade between China and Europe.

The China-Europe Land-Sea Express Route has wide coverage, and shortens the cargo's delivery period. Our line of business covers 16 countries including Greece, Macedonia, Serbia, Hungary, Czech Republic, Romania, Austria, Slovakia, Germany, Poland, etc. and directly covers a population of over 32 million. The Piraeus special train is running once every ten days, and each train's maximum capacity is thirty-eight 40HC. By taking the China-Europe Land-Sea Express Route, it only takes 1 to 2 days to transfer the cargos from the Piraeus Port to countries in Balkan Peninsula such as Bulgaria and Serbia. It takes 2 to 3 days to Romania, 3 to 4 days to countries in Central Europe such as Czech



Republic and Austria, and 4 to 5 days to Poland and Germany. The China-Europe Land -Sea Express Route shortens the delivery period for 10 to 11 days.

#### Economic Topic | Promoting the Development of the Nation's "Belt and Road" Initiative

### Case: The countries of fairy tales and music along the China-Europe Land-Sea Express Route – Central and Eastern European countries

Austria, Czech Republic, Hungary and Slovakia are in the center of Europe, and are the transportation hubs in Central Europe which connect the Eastern and Western Europe. In 2016, the COSCO Shipping Central Europe Company was established with its headquarter in Prague, and two branch companies were established in Vienna, Austria and Budapest, Hungary. Currently, there are a total of 60 employees at headquarters, while 3 of them are Chinese nationals, and the other 57 are local employees. The Central Europe Company makes the inland container yard become the pivot in order to arrange the import and export customers. Exports drive the volume of imports which reduces the inland costs, and raises the amount of cargos. Based on the 18 container yards in the area, more than 350 customers from imports and exports are arranged to plan the channels, the amount of the cargos, and the flow directions of the exported cargos.

The China-Europe Land-Sea Express Route only takes 3 to 4 days to deliver the cargos from the Piraeus Port to Austria, Czech Republic, Hungary, and Slovakia. On January 26th, 2017, the first train carrying household supplies packed in Ningbo, China departed from the Port of Piraeus, and it arrived at Budapest, Hungary on the 29th. It carried electronic products to China on its way back.



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The number of trains to and from China, and the amount of shipping volume are both rapidly increasing. In the first half year of 2017, the amount of containers which are carried on the rail lines was increased to 40600 TEU, and it reached 82000 TEU at the end of the year. Deutsche Bahnan announced that it would further increase the number of trains to and from China in the future. By 2020, the amount of container shipping volume is estimated to increase to 100000 TEU, which will be triple as much as it was in 2014. *JJ* 

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- Jochen Thewes, the CEO of DB Schernker which is an operator of Deutsche Bahn

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In order to provide the clients with fully professional value-added services, and to comply with the development of the China-Europe Land-Sea Express Route, we built a 250000-square-meter bonded warehouse and LCL center in the bonded area of Piraeus Port. All the general cargos, dangerous cargos, chilled and frozen cargos can be declared, unpacked, sorted, stored, reloaded, and consolidated there, and delivered to the designated places in Central Europe with efficient and highquality services.

The China-Europe Land-Sea Express Route is an important component of the nation's "Belt and Road" initiative. Its construction and development will be a great impulse to the promotion of the "21% Century Maritime Silk Road" and the development of areas which are along the express line as well. We will continue to enhance the cooperation with railway companies, and push forward the construction of the China-Europe Land-Sea Express Route while we make Piraeus Port a hub and rely on the strong route network. We will provide more choices for the clients, and provide stronger support for the strategy of China.

Economic Topic

# Providing High Quality Services for Our Clients

We are keeping focus on "Clients are our priority", and developed differentiation strategies to provide high quality services throughout the whole shipping process. In order to achieve this goal, we continually enhance the dynamic monitoring of shipping activities to make sure the goods can be delivered on time. We also invited clients to join the experience plan which help us understand their thinking. Complaints from customers will be dealt with promptly. In 2017, our averaged on-time rate is 70.70%, ranked in the top 3 among the shipping companies. We also have handled 4 complaints with satisfactory results.

In the following two sections, you will understand what we have done and achieved in the dynamic monitoring of shipping activities, schedule tracking, customer satisfaction survey and customer complaints.

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Economic Topic | Providing High Quality Service for Our Clients

### Strengthening Dynamic Monitoring of Ships' Daily Activities

The OOCL HONGKONG, the biggest vessel in the world at our Xiamen Ocean Port, full capacity 21,413 TEUs In 2017, our ships' on-time rate was the best in the industry. According to the statistical report of the global leading container shipping companies on-time rate released by CargoSmart (a global shipping and logistics solution provider), we learned that: First, COSCO Shipping Lines' on-time rate was generally higher than the average rate of the industry, and maintained top three in the industry among most of the months. The averaged on-time rate is 70.70% for the year of 2017. Especially in April, the on-time rate was 64.20%, and shared first place with the other two leading shipping companies in the industry. In 2017, with the strategic change of the marine shipping layout, the Ocean Alliance's has higher on-time rate compared to the alliance of 2M and THE, and our company's performance was the best in the ocean alliance. Second, regarding the Estimated Time of Arrival (ETA) deviation. Economic Topic | Providing High Quality Service for Our Clients

days are lower than the average level of the industry, which means that we have effective control over the deviation of transport time during shipping. Maritime shipping have to face continuous climate changes, hence a good control over the deviation time determines whether it is an outstanding company or not.

Strengthening the dynamic monitoring of shipping activities is the critical supportive work that every shipping company should pay attention to. The vessels sailing on the sea are all controlled by the headquarters. Our MOC team works very hard on improving the dynamic monitoring work and collaborate with the highly efficient port operation. . We hope to promote and realize the synergy and the strategy of "Clients are Our Priority".



\*Data Source: Carrier Performance Measurement from CargoSmart 2017

We can see from the graph above that, COSCO Shipping Lines' delivery deviation days were lower than the average level of the industry except for January and February.





We can see from the graph that COSCO Shipping Lines' monthly on-time rates were higher than the average level of the industry except for January 2017. The 75.90% in June was 12.80% higher than the industry level.

\*Data Source: Carrier Performance Measurement from CargoSmart 2017

The dynamic monitoring of ships refers to the real-time monitoring of the location of the ships by technical means, so that we can gain real-time tracking of the ships' safety and shipping schedules. In particular, it is real-time monitoring of the ship's equipment, navigation path and status, as well as the management of files and databases. This will help our continuous improvement of the communication channel to make it more intelligent.

The dynamic monitoring of the ships is related to the safety of our shipping, the use of fuel and the punctuality of shipping; therefore, this is our work priority. In this regard, COSCO Shipping Lines have established the Marine Operating Center (MOC), which is responsible for the real-time management and monitoring of the operations, to ensure the efficiency, safety, punctuality and cost efficiency of service provided. At the same time, to promote the work of energy saving, emission reduction and environment protection. In 2017, the MOC has established an evaluation system for shipping schedule and fuel consumption, based on the monitoring of the schedule, voyage, speed, power and fuel consumption. In one year, we have completed the vertical monitoring of the ships' dynamic shipping activities, shipping progress (early-arrival, behind-schedule), working condition, and have integrated elements such as equal-power navigation and trimming optimization with meteorological navigation and route optimization. In general, we have realized the real-time tracking of ship navigation and operations on the berth, thus achieved optimum balance between safety and fuel-efficient and also ensured the service quality.

In the daily operation monitoring work, we hold the belief of refinement, standardization and cost priority to strengthen the ability of dynamic monitoring and navigation tracking. To this end, we make use of technical means such as, Ocean Shiping Global Dynamic Master Control System, Energy Efficiency Management System, and externally procured GVVMC (Global Vessel Voyage Monitoring Center) System, the website of shipping information (www.shipxy.com\_\_ meteorological navigation service providers, and trimming optimization monitoring system.

In addition, we strengthen interaction between ports and vessels, and also promote the IOP (Improvement of Operating Productivity) project. We succeed in implementing the IOP project across 9 major regions of the Far East covering 11 ports and 19 wharves, so as to optimize the shift schedule, to improve the ship's direct calling rate, operation efficiency at the ports, and to reduce operation time at the port, and therefore to guarantee the smooth operation and ensure the timely delivery of customers' cargo.

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On-time Rate shared with the other two leading shipping companies in the industry in April 2017

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On-time Rate among most of the months in the industry

70.70% The Averaged On-time Rate in 2017

#### Economic Topic | Providing High Quality Service for Our Clients

### Providing High Quality and Efficient After-sale Service



### Case: In cooperation with the world's leading furniture retailer

We are a global shipping company with solid foundation so we are able to meet the demands of customers and keeping improving the quality of our service. There is a world's leading furniture retailer working with us for 12 years and have developed its contracted capsize haul from thousand tons to million toos. Now we are one of their first tier suppliers.

Our client conducts annual audit work on its suppliers and we rank in the top among all audited ones. The applied auditing standards are from 14 dimensions involving environmental and social aspects. Our CSCL Atlantic Ocean vessels gained very high score in the audit work of 2017. The timely and flexible coordination between the headquarter and the ports and the speed of solving problems help to ensure the quality and efficiency of our services. That is the reason why we enjoy a long-term and stable relationship with our client even when the shipping market is competitive.



CSCL Atlantic Ocean which was 399.67 in length, 59.60 in width,



In the audit work of 2017, our client was very satisfied with us among all its suppliers

capacity 2,550,000 TEUs

terdam Euromax Port, annual full

Our clients are everywhere across different industries. We devoted by providing the best shipping solution guided by the principle of "Clients are Our Priority". In order to enhance the communication with our clients, we established the customer service department to improve the quality of our services in a targeted way after understanding our clients' needs.

We hire the third-party professional institution to conduct annual customer satisfaction survey. COSCO Shipping Lines has a large of number of clients across different industries, while COSCO shipping ports has fewer but prestigious clients due to its industrial features. As of 2017, 1796 out of 2,511 questionnaires were recovered for COSCO Shipping Lines and the customer service index is 87.94. 7 out of 11 questionnaires were recovered for COSCO Shipping Ports and with 100% satisfaction rates.

We are keeping focus on expanding channels for customers to file complaints. Call center and public mailbox were built in 2016 after the integration of resources. Once the call is received, it will be distributed to headquarters and relevant ports. The problems proposed by the customers will be managed in a more precise way. In 2017, the open of WeChat online customer services enabled us to be reached at any time during working hours, so we can convey timely feedback to our customers.

We investigate the complaints at first and assign them to relevant departments for handling. We pay return visits to check whether the complaints are handled in an effective and timely manner. Our customer service department summarizes complaints and identify the common problems and obstacles in the operating process and will share the recommendation for improvement throughout the whole company. This is to enhance our sense of services and responsibility for continuous improvement. No complaint was received in 2017 for COSCO Shipping Ports, while 4 complaints were received and addressed successfully and promptly for COSCO Shipping Lines.

The protection of customer privacy is an essential step in customer service and also plays an important role in the management of customer relationship. Our global sales department is responsible for the establishment, inspection and improvement of the protection system and also to protect customer information from missing or being used illegally. We sign the confidentially agreement with our clients and promise not to share, disclose and sell their information to other parties exclusive of our employees, authorized agents, partners or subsidiaries. In 2017, there were no complaints of violation of customer's privacy.

We think in our customers' perspective, so we adhere to the "Clients are Our Priority" development strategy. Under the background of actively promoting the development of the extended capital operation capability, we strive to grasp the real needs of our customers and let the ability to serve our customers stay at the forefront of business expansion. To this end, we continue to optimize our communication channels and try to understand their opinions and suggestions through proactive communication, and handle customer complaints in a timely manner. Customer satisfaction helps us to find the best way to achieve the true value.



capacity of 18,982 TEU, was built in 2015

II I hope COSCO, as our first tier supplier, could do better in the area of carbon emission reduction, because 40.00% of our carbon emission is from the shipping process. If they can create more green ships, I am sure there will be some breakthrough in our cooperation.

-Leader of sustainable business from the leading furniture retailer.

II Since 2016, they provide more comprehensive services. It has been many years since we worked together and I have confidence in our future cooperation. I hope that they will be stronger and able to compete with those top shipping companies from America and Europe and be the industry leader in the future. II

- Leader of purchasing business from the leading furniture retailer.



In order to discover and analysis problems existing in customer service, we invited 62 representatives among our Chinese clients as the experience officers in 2017. The representatives were made up of direct customers and agencies, long-term customers and new customers. Since the issue of the plan, we made two telephone follow-ups and one online investigation for each customer. During the investigation process, we asked for suggestion on our service and try to find out undiscovered aspects that were important to clients and would visit our clients if proposed questions were complex. The plan helps us to continuously improve our service and customer experience.

# Economic Topic

# Ensuring Safety of Navigation

The shipping industry is a heavy input, high-risk, capital-intensive and highly specialized service industry. Apart from the common risks that ordinary enterprises may face, the shipping industry also has to face risks that are unique to this industry. Security is one of the most important issues that shipping companies have to face. It is also the most important issue concerned by all sectors of society. We adhere to the principle of "Putting Prevention as Priority while Combining with Resistance" to implement the safety production. We ensure the safety of shipping by strictly following the regulations on safety production and preventive measures that we created.

We conducted ship safety inspections and drills. In 2017, we conducted 1179 safety inspections to track owned vessels 832 times with navigational risks and remediated the identified problems and risks immediately.

We set stringent standards for the inspection and transportation of dangerous goods. In 2017, we carried 202,139 TEU dangerous goods with 18 incidents happened all of which were promptly and effectively addressed and no casualties happened.

For anti-piracy and prevention of typhoon, we conducted specific drills to control the risks, and exercise contingency plans if there is an emergency. In 2017, we tracked and guided ship 149 times without any property damage or personal injury. We tracked 220 times with respect to ships sailing in waters with risks and employed armed guards 74 times. No loss was occurred due to pirate attacks.

In the following four sections, you will be told what we have done in safety inspections, management of dangerous goods, prevention of typhoon and anti-piracy areas.

### Implementing Strict Inspections on Safety Production

We attach great importance on safety navigation and safety operation at the ports. In order to maintain a safe working environment for our employees, we stirtly follow the rules in the *Production Safety Law of the People's Republic of China* during our production process and formulated various regulations for safety production, Safety Management Responsibility Provisions and *Emergency Plan for Safety Production* and so on. In 2017, three was no serious safety accidents happened in our own ships, and the safety production remained basically stable. The following chapters disclose the statistics of the safety work of our own ships.

We work hard to create a security team. At present, our team members are all over the world. In order to improve safety management level and ensure a comprehensive and balancing development of safety management, we focus on improving the quality of our team. In 2017, we organized 23 managers and 29 staffs to conduct various specialized trainings and helped 200 safety personnel to obtain safety management qualification. These special training on safety management would help our safety managers both in theoretical and practical areas. In the meantime, our Company will gradually eliminate geographical differences in safety management and build more coordinated team.

We strive to strengthen the safety management of the ship. Navigational safety is our focal point. To this end, we constantly improve the work of our crews and staff on the shore, take advantages of big data, network-based environment and professional teams and try our best effort to ensure the safety of navigation. In 2017, we tracked 832 times with respect to vessels with navigation risks, the tracked vessels were based on owned ones, the details are as follow:

Risky Events	Total
Track and guide vessels facing heavy wind	93 times
Track vessels in ice zone	1 time
Track vessels in the mist	202 times
Guide the prevention work in typhoon	14 times
Inspecting vessels	289 times
Track tropical storms over northwest Pacific Ocean	27 times
Track storm over other oceans	56 times

We carried out safety inspection and potential problems identification activities. We carry out this kind of work every year in the corporation, pay close attention to the implementation of various measures, summarze all problems identified during the process, analyze and rectify them in a timely manner.

In 2017, we conducted 1,179 safety inspections, identified and rectified 3,672 defects:

Safety Inspections Implemented	Found and Rectified Defects
Implement vessels inspections 272 times	1,213
Implement inspections on land 901 times	3,361
Implement inspections at the ports 6 times	98

Economic Topic | Ensuring Safety of Navigation

" Songyun River" vessel

### 回) Case: Safety inspection of "Songyun River" vessel

In January, 2017, we implemented inspection on "Songvun River" vessel and made assessment on its safety, ability of handling emergencies, key equipment and rescuing. We discovered 8 defects and urged the responsible personnel to solve them in a given period of time.

Outside the enterprise, we would continue the supervision work called "Port State Control" in 2017, to increase the passing rate for obtaining the "non-approval required" status. In 2017, a total of 134 PSCs were implemented, 117 of that passed with no defects found, which accounts for 87.30% of the total number of inspections. The passing rate increased by 7.50% as compared to the same period of last year. The rate of defect-free pass rate has increased from 2016 while with no ships being detained.

In the view of regional distribution of PSC inspection incurred, the key areas are China, Indonesia and the United States. Common defects are mainly focus on ship firefighting equipment and its certificates and documents. We strengthened the process of tracking and analysis of defects, and formulating rectification measures. The problems found in the PSC inspection were emphasized during the crew training and

#### Inspections Conducted At The Ports In 2016 & 2017





inspection process. Then their ability of managing safety inspections would be improved and the objectives and requirements of maintenance and routine management of the ship can be implemented so as to improve defect-free pass rate and prevent the ship from being detained.

We carry out special safety activities focusing on building an intrinsically safe management system after organizing special rectification activities, strengthening prevention and control processes and improving shortcomings. In 2017, we conducted a total of 4,599 visits with 25,000 participants. For example, we have carried out activities such as safety production month campaign, the special safety management of the driver's team and the field work team, and safety drills.



87.3%







## Case: Exercise of dealing with dangerous goods leakage on "Tianyun River" vessel

The background of the drill conducted in June 2017 was about leakage of "isoprene" happened due to malfunction which caused a fire and slight poisoning and injury to the crews, thereby endangering safety of the ship and the crews. In this drill, MOC guided crew members to carry out emergency rescue of injured personnel. After the drill, the team summarized and evaluated their performance. Through this exercise, the feasibility and effectiveness of the Company's Emergency Response Plan and Special Emergency Plan for Carriage of Dangerous Goods by Ships were tested. The emergency rescue team acted swiftly and with clear responsibilities and objectives in mind.



### 国) Case: The safety production month campaign



In June, 2017, a special taskforce launched the campaign called "Safety Production Month" with activities like "6.16" production safety consultation day, knowledge contests and education, as well as investigation of hazards. All COSCO shipping ports took active part in the safety production month campaign. For example, Jinjiang Pacific Company held the facility security and fire emergency exercise in 2017. More than 100 people from local ports, maritime affairs, and public security border and fire control departments took part in the exercise. The drill was monitored by Jinjiang Safety Supervision Bureau, Quanzhou Weitouwan Harbor Management Station and other related departments. Through the organization of "Safe Production Month", we further enhanced the safety awareness of our employees and implemented all safety measures, so that we promoted the concept of "People-Oriented and Safety First".

We conduct safety inspection with all of our endeavor which is essential to the shipping industry. We have built stable safety management system in enhancing the management and implementation of safety shipping and also in organizing training on safety inspection. We will continue doing that in the future and be the safeguards of our people, our vessels and our cargos. Economic Topic | Ensuring Safety of Navigation

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According to the International Convention for the Safety of Life at Sea and FINAL ACT OF THE INTERNATIONAL CONFERENCE ON MARINE POLLUTION, 1973 1978 Revised, constrained by Basel MARINE POLLUTION, 1973 1978 Revised, constrained by Basel Conventions and meeting the requirements from IMDG CODE, dangerous goods refer to goods with explosive, flammable, poisonous, corrosive, radioactive and other dangerous characteristics, which could easily cause personal, property and environmental damage during the transportation, handling and storage. Dangerous goods must be packaged with special materials or in solid bulk.

We establish several regulations and rules, such as Dangerous Goods Transportation Management Regulations, Dangerous Goods Transportation Operation Notice, Shipping Dangerous Goods Reveal Emergency Notice, COSCO Shipping Dines Co., Ltd. Dangerous Goods False and Hide Clients Blacklist Regulation and COSCO Shipping Lines Co., Ltd. Dangerous Goods Methods of Prevention and Disposal of False and Hide. These regulations and rules help us achieve standardized and institutionalized management for dangerous goods' operation procedures, transportation mode, checking and recording, staff protection, emergency plan and concealed blacklist.

In 2017, the dangerous goods handled by our container service and port service were 202,139 TEU, including 13,739 TEU container service and 65,400 TEU service. All of 18 accidents happened related to good transportation and damages have been dealt with promptly and effectively. There was no casualty.

# Knowledge Tips: What will Contain in Our Containers?

Our containers have different sizes and types, which help us carry different kinds of goods, including dangerous chemicals. Normally, most of our containers are made by steel with characteristics of tough strength, firm structure, high weld ability, tight to avoid water from leaking in and recyclable. There are four types of containers: dry cargo boxes, refrigerated containers, open top boxes and frame boxes. There are four sizes of containers: 20 feet standard containers, 20 feet high top containers. A 20 feet container is as long as two



passenger vehicles and could load around 21t of goods. A 40 feet container is as long as four passenger vehicles and could load around 26t of goods. We have various types of goods in the containers covering large industry span. From fruit, agricultural products to home appliances, all of them could be transported by our containers. We insist on making contributions to alleviate the negative impact on our environment, for instance, we reject to contain and transport any product related to whales and sharks for the purpose of protecting marine organism and environment. In 2017, our container transportation amount reachment. In 2017, add TEU.

When emergency, such as fire, explosion, casualties and poisoning, occurs involving dangerous goods, we require field staffs to implement the requirements from IMDG CODE strictly. For instance, if the leakage of dangerous aoods occurred during the shipping transportation, sailors must execute the instructions in the emergency manual, and the Captain should inform the headquarters immediately. Then according to the headquarters' instruction, the Captain along with the first mate commands in the leakage accident on field, estimates the type and quantity of leakage goods, commands sailors to perform recuse wearing full sets of protecting suits. If necessary, the Captain could evacuate the sailors to ensure their safety. After the accident, we will set up a special accident investigation team to study and summarize experience to ensure no more similar accident will happen again in the future.

False and concealed dangerous goods is another significant risk for shipping enterprises. These behaviors will cause serious loss of life and properties, so we must handle with these situations seriously. Therefore, we create a blacklist of clients with bad track records and build a three steps management processes including prevention monitoring, dangerous goods emergency disposal and accountability for the punishment. We will check and control suspicious activities strictly during the processes of goods' collection, booking, handling and transportations. For instance, when checking the conditions of goods, all chemicals must provide MSDS, the product safety technical specification. When checking the shipping lists, document operators must check whether dangerous goods are included in the containers during lists making process. Once false and concealed dangerous goods are discovered, the internal or external branches, agencies or ship will take actions immediately and inform the headquarters. Then the headquarters will formulate emergency plan based on the particular situation. In addition, we require all port companies to maintain the communication with clients and to report these false and concealed clients to the headquarters immediately. The headquarters will add the clients' bad records into the blacklist. Those blacklisted clients are strictly prohibited to order our containers in the future.



Dangerous goods operation and transportation is one of the most dangerous services for shipping enterprises. Each responsible employee much execute relevant operation rules strictly without any defect. We will estimate and formulate emergency plan, provide daily employees security training and punish false and concealed behaviors. We need to ensure that we can control every detail in shipping. It is not only for the security of goods, but most importantly, it is protection for our employees resonal security.

# Measures Taken in Preventing Typhoons

For the prevention of flooding at the ports, which means we adhered to the slogan of "Two Reports in One Day" stating movement and location of typhoon and the implementation of preventing flooding measures. We also set up flood prevention office at the docks (hereinafter referred to as "FPO") to monitor the work and coordinate with different parties. At the same time, FPO established relevant contingency plans, conducted emergency rehearsals, appointed special persons to collect and record related flooding information and carried out various self-inspection work to ensure that facilities work effectively. When emergency incurred, COSCO shipping port implemented 24-hour work shifts. FPO was responsible for collecting and recording relevant information such as location, speed of typhoon; and maintained contact with the superiors and delivered important information to subordinates. In addition, we set four-level response mechanism and pre-determined the actions should be taken in each level of circumstances. In response to Level 2 and above situations, evacuation procedure will be executed.

Prevention Work of Flood at the Ports





T challenges to the shipping activity. According to statistics, 80-100 typhoons are generated each year by the world's tropical ocean, of which about 36.00% occurred in the northwest Pacific and the South China Sea. In summer and autumn, 28 typhoons are generated in the northwest of Pacific Ocean and an average of 7.10 typhoons landed in China. It is very common for Chinese coastal areas to be hit by typhoons every year, especially in south-eastern coastal area.

The impact of Typhoon is on a large-scale and may last long (generally May to October) and poses serious threat to the safety of crews and properties. We have formulated Regulation on the Prevention of Flood for Ports and Prevention of Typhoon Instructions to establish mechanism for preventing and handling emergencies. Our crews should collect precise typhoon information by making use of advanced technology such as meteorological information network. In addition, we collect our work and improve the existing problems and to safeguard our personal and property safety every year. Data of typhoons which affect Chinese coast line



For the precautions against typhoon approaching, we introduced the Precautions Against of Typhoon Instructions, which clarifies the regulations that crew members should follow and emphasizes that "Preparation is priority, escape when timing is right and allowance for unforeseen circumstances". The Captain is responsible for ship safety in the first place and can make decisions and commands during the process. The Captain organizes all crews to learn the knowledge of precautions against typhoons according to the different seasons and navigation areas. Crew members conduct self-examinations every year according to the contents of self-checklist of facilities, record results and report to command center immediately.



Weather information is collected and used to track the movement and location of typhoon no matter we are sailing or not. Within 48 hours before typhoon approached, we have addressed four response levels. In order to respond in each level, we need to complete the form of the movement and location of typhoon at the specified time and submit it to the Command Center. The principle is "scientific analysis, comprehensive assessment, correct decision-making and reasonable resistance", which guided us to reduce fuel loss and to arrive on time.

Prevention Of Flood On Board



In 2017, we guided 149 lanes to avoid typhoon successfully with no property loss or casualties. This year, we summarized the important lessons learned in the aspects of mechanism construction, emergency drills and implementation of preventing flood. Although we still have a long way to go, we are devoted to the continuous improvement of work strategies, are prepared to deal with disastrous weather emergencies. Anti-piracy and Emergency Plan

A released by the International Maritime Bureau (IMB) on piracy year by year. In 2017, 180 piracy incidents happened worldwide, decreased by 6.00% compared to 191 incidents in 2016. On the other hand, the number of crews kidnapped by pirates around the world has increased by 21.00% to 75 incidents in 2017. Three points can be summarized from the analysis. Firstly, the number of piracy incidents was gradually decreasing, but their attack efficiency was increasing. Secondly, pirates had shifted their focus from robbing goods to kidnapped crew members and sk for ransom. Thirdly, the global situation of anti-piracy was not optimistic.

As one of the largest shipping companies in the world, we are under great pressure in anti-piracy. As you can see from chart above, the pirate attacks in 2017 mainly happened in Indonesia, Southeast Asia, Arden Gulf and the Gulf of Guinea, where many of our routes were covered. In order to prevent pirate attacks and protect the safety of crew members and goods, we have formulated the Notice of Anti-Piracy and established Ship Management Center and Security Departments to supervise, inspect, warn and instruct the crews in their daily anti-piracy work, and provided training on a regular basis.

#### Pirate Attacks and Kidnapping sailors happened from 2013 to 2017



#### Piracy incidents Scattergram in 2017



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In order to ensure navigation safety, we have formulated measures against pirate attacks and always adhered to the principle of "Put Prevention First, Always Be Prepared, and Respond Promptly". First of all, we paid special attention to accident-prone areas including Southeast Asia, South Asia, East Africa and West Africa. We tried to get far away from the pirate areas when designing the routes. For example, pirate attacks in the South China Sea happened less frequency than that in the Sulu Islands so the ship can sail to the west of Kalimantan to avoid attacks happened in the Sulu islands. Moreover, during the voyage, the crews received the sailing notices promptly after they were issued by the anti-piracy center. Before entering into the areas where pirates are active, the captain would ask the crews to get prepared and stay alert and establish the ship's antipiracy alarm signals and contact information. At the same time, all channels were closed except leaving a passage outside the living area. All warehouses would be locked and anchor is fastened. While sailing into in pirate-infested areas, all on-duty officers became vigilant and pay close attention to the nearby sea area and monitored the passing ships. Patrol officers focused on their work and make sure all communication equipment is working properly so that they can connect with the control room when attacks happened. When the ship was harassed by pirates, the crew would report orally to the headquarters right away according to the "Ship Security Plan", and the headquarters made judgements on whether to attack or to defend according to the circumstances.





In our daily work, we invite experts to work together on the prevention of piracy. In October 2017, we held a seminar on antipiracy and a seminar on anti-piracy in West Africa in Shanghai. China Maritime Search Center, China Ship-owners Association, China Navigation Association, and other five Chinese and foreign maritime security and consulting companies. During the meeting, we summarized the anti-piracy work in 2017 and invited experts to analyze the current situation of piracy and put forward countermeasures. When sailing in the sea, the safety of crews and merchandises is the priority. At present, the piracy attacks on ships have been greatly reduced due to the actions of the IMO and other countries. However, the anti-piracy situation remained grim and we attached great importance to the prevention of piracy. The important thing is how to prevent piracy and respond to the incidents. In 2017, we tracked 220 vessels operating in high-risk waters and employed 74 armed guards as escorts. With our efforts, there was no loss brought by pirate attacks. We hope to keep up and continue protecting our vessels from being attacked.





# Environment Topic

ALC: 10 100



COSCO pursues both economic benefits and corporate social responsibility to fulfil the requirements of environmental protection in Global Compact. Based on the guideline, company should advocate "Comprehensive management; Treasure resource; Protect environment; Behave as social responsibility undertaker to protect environment, treasure earth resources, support and participate in environmental protection activities, and improve the our environmental protection system actively." We regard that security and environmental protection are important parts of our business. All subsidiaries have already applied the *ISO14001 Environmental Protection Guideline*, established and operated environmental management system which are verified by the third party certification agent. Meanwhile, all the shipping lines have already applied the *ISON* International Security and Anti-pollution Regulation and established a security management system.

In 2017, we deepened the energy saving and emissions reduction effort continuously and we also paid close attention to new requirements of energy conservation and emissions reduction in International Covenant to enhance marine energy management system and to accelerate the process of automation and electrification of wharfs. In the business of container transport, we developed energy saving methodology in respect of technology, operation and management. We generalized IOP projects and flight fuel inspection, and built the Green Intelligent Shipping System. In port operation, we accelerated the establishment of the first automated wharf – Xiamen Ocean Terminal; at the same time, we expanded the project of changing from using oil to electricity to reduce energy consumption and emissions at the wharf.

In the following two chapters, you will learn much more about our great efforts and successes in pursuing green shipping management and establishing low carbon ports.

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Environment Topic | Pursuing Green Voyage of Shipping and Establishing Low Carbon Ports

the scope of IOP projects. We published "Fuel Management Weekly

regularly; all ships also adopted the "Unannounced Inspection of Fuel

Report" and "Fuel and Lubricant Management Monthly Report"

Oil" to trace daily usage and remaining stock of fuel. In terms of

energy saving through operation, we completed and improved the

inward/outward automatic update system and the optimal operation

practice guideline continuously. Meanwhile, we promoted our ships

to bunker in Russia Far-East Port. With these actions implemented, we

f Shipping and Establishing Low Carbon Ports

COSCO SHIPPING VOLGA

### Pursuing Green Voyage of Shipping

2

The global shipping companies and governments are facing challenges in reducing carbon dioxide emissions. In 2017, Ministry of Transport of the PRC Government published The Transportation of Energy Saving and Environmental Protection "13th Five Years Developing Plan to announce that "China is now meeting the significant period of transformation, upgrading and improving quality for transportation industry". China is a large shipping country that shipping industry shares nearly 90.00% of Chinese exports business. The energy consumption of shipping ranks only second to highway transportation, occupying over 20.00% of total energy consumption. Therefore, the shipping industry faces an arduous emission reduction task. We must optimize energy usage structure, reduce fuel consumption, and reduce greenhouse gas and pollutant emissions to support the low carbonization process. This action also could support China to tackle climate change and relieve the contradiction between energy supply and demand. The disclosed data of 2017 fuel consumption, greenhouse and waste gas emission were based on the owned and rented vessels using our purchased fuel in container shipping business.

The global economy situation was revitalizing and the market of shipping industry was recovering in 2017. As the largest container liner shipping enterprise in China and the fourth largest in the world, our fleet has increased by 43 vessels with 29.45% growth rate of the full year profit in 2017. Due to the increasing numbers of vessels and business revenue, the usage of diesel had seen 22.77% annual growth and fuel 22.13% annual growth. The amount of carbon dioxide emissions were 14,900,258.80 with 22.15% annual growth. Nitrogen oxide emissions were 231,179.20 with 22.15% annual growth. Coysulfide emissions were 237,464.80 t with 22.15% annual growth. The container liner shipping covers 99.00% of the energy used in our business and the increasing energy volume has led to an increasing trend of exhaust gas and carbon dioxide emissions. Therefore, we established the optimal fuel usage management as the main method to achieve the purpose of low carbon voyage.

The COSCO Europe adopted HPS to

reduce the energy cor

In order to achieve our target of "Energy Conservation and Emission Reduction, Low Emission and High Efficiency", we formulated several regulations such as "Energy Review" and "Environment Review" to help us evaluate the situations of energy usage and environment

#### Comparison of Waste Emissions (Unit : kg/kiloton per nautical mile)



impact. At the same time, we established and implemented Energy Management System and divided energy saving measures into three aspects: technology, management and operation.

In terms of energy saving through technology, we promoted the implementation of ship energy efficiency system. We have received ¥25.17 million from Ministry of Transportation of the PRC as a reward for the successful implementation of the "The Transformation of COSCO Shipping Corp 10,000TEU Level Container Ship Receiving Shore Electrical Devices project". In terms of energy saving through management, we enhanced fuel management and control to expand

### Case: Transformation of Ship Bulbous Bow and Propellers

Navigating in the ocean must consider air resistance, friction force and wave resistance from water. From the perspective of energy consumption, ships must burn more fuel to increase power to overcome wave resistance. Therefore, lower waves lead to lower energy consumption. Ship bulbous bow is the design to reduce wave resistance. The waves created by bulbous bow combine with other waves could reduce wave resistance by the convergence of the crest and the trough. The transform and upgrade of bulbous bow will save energy for later usage.

In 2017, vessels in our "COSCO Asia", "COSCO Europe" and "COSCO America" have already finished the transformation of bulbous bow and propellers. Vessels in "COSCO Africa" has already finished the transformation of bulbous bow and 6.50% of fuel saving was expected.



Transformation of Ship Bulbous Bow

### Case: Advance the Breadth and Depth of IOP

With the revival of shipping market in 2017, the volumes of container handled and the workload at the ports have been substantially increased. This caused a crowedd situation at the ports, especially those in Far-East area, and waiting time, berthing time and time on berth are increased. In this case, MOC enhanced the implementation of 100 (Improvement of Operating Productivity) in domestic ports. Meanwhile, MOC extended the IOP to overseas with both Singapore PSA port and HK HIT port. We advanced and implemented IOP in 9 areas of Far-East, 11 ports and 19 wharfs to optimize schedule of voyage. It improved our shipping on berth rate and operation rate on port, decreased ships operation time on port to ensure the ships can embark on schedule so that our clients could receive the goods on time.

During the implementation of IOP, we observed the operation on site to identify the potential problems that may obstruct the critical processes in port operations and shipping agency operations. Through analyzing the problems and key operation quality index, we communicated with port, shipping agency and other shipping personnel timely to implement the process optimization measures. Meanwhile, we controlled relevant key operation index by ship, by schedule and by operation step and guided relevant employees to improve their work.



Environment Topic | Pursuing Green Voyage of Shipping and Establishing Low Carbon Ports

Our IOP project achieved remarkable success in 2017. First of all, we had great improvement of operation efficiency and stayed ahead of the industry. In domestic, there was a 14.00% increase in single trip stevedoring and 2.00% increase of efficiency. At overseas ports such as Singapore PSA port, there was a 31.00% increase in single trip stevedoring, 17.00% increase of efficiency and 2.2 hours reduction of on berth time. Secondly, we confirmed key responsibilities and working standards of shipping agents. Based on the shared targets with ports, project team optimized the work of shipping agents. Through early involvement in the berth plan, resource investment, stowage coordination, vessels in the berth working processes control and results analysis after shipment, we improved berthing and stevedoring to achieve the controllability and visualization of all berth operation. Last but not least, we regulated and optimized the processes and requirements of vessels working in the berth. The efficiency of loading/discharging has close relationship with vessels' cooperation. For this purpose, our project team raised the working processes and requirements for loading and discharging in the berth, and sent guideline to the vessels. All vessels must focus on work efficiency and cooperate with us actively.

Besides, we also pay much attention to the situation of water usage in vessels. We worked hard on desalination by using the waste heat from the equipment to produce fresh water to for usage of living and equipment. This helped us to decrease the pressure of getting replenishment of fresh water on shore. Besides, we insisted on promoting employees' awareness and habits of water conservation and encourage them to optimize utilization of shipping water usage. For instance, our employees won the 2017 China Transportation Industry Excellent Achievement Award for the improvement project of COSCO ASIA drinking water system. The fresh water consumption amount from our fleets of vessels was 276,163.30t, including living water usage of 204,988.70 t and the amount of desalination was 71,174.60t.



We advocate the idea of Green Voyage. We optimize fuel usage from three aspects: technology, operation and management. It could not only reduce our fuel usage and cost, but also reduce the emission of carbon dioxide which directly relieve greenhouse effects. We encourage employees to propose optimal solutions for water saving to reduce

### Case: Improvement of Drinking Water System in COSCO ASIA to Reduce Fresh Water Refill Expenses

COSCO ASIA fleet is a series of ultra-type of vessels produced by Korea Hyundai Industrial Ulsan Shipyard, which could carry 10,062 TEU and is currently serving the American Western - Asia - Mediterranean routes. This type of vessel does not install specific drinking water equipment. Its drinking water system is mixed with living water system, and the drinking water system cannot be separated with the water generator. It will make drinking water contains less mineral substance that can affect sailors' healthy. During the actual shipping operation, sailors must rely on the port to supply fresh drinking water to them which increases the shipping operation cost. Therefore, the sailors in the vessels of this type formed a project team to analyze sailing schedule, fresh water consumption, equipment on the vessels and sailors' health, then they formulated a project to reconstruct the pipes of fresh water tank and separate the drinking water system from the living water system to ensure drinking water quality and sailors' health. The transformation of pipes could help us to reduce the operation cost by ¥75,000 for refill of fresh water expense per vessel per year and ¥300,000 for four ships in total.



operation cost. As the largest shipping enterprises in China, it is important for us to be the role model of the industry by generalizing and promoting green voyage practice, and paying effort to the reform of the energy structure in China and making contributions to tackle global warming.

### Building Port Low Carbon Emission

n 2017, we insisted on starting the energy conservation and reduction. We increased the investment in low carbon operation and create of emission campaign from three aspects, namely, employees, technology and management. We advocated to build the Low-Carbon port; reduce the total and unit fuel consumption. In building Low-Carbon port, we have received economic and social benefits, as well as lots of praises from the government and the society.

In 2017, the diesel consumption in COSCO Shipping port was 59,065,133L, 1,294,114L of gasoline, 13,405L of liquefied petroleum gas, 18,001,030L of liquefied nature gas, and 407,908m3 of natural gas. Besides, we purchased 441,835,179kWh of electricity and 600.5 million joule of heating power.

The total energy consumption in COSCO Shipping port was 4,364 mega joule in 2017. In the perspective of carbon emission, the total amount of greenhouse gas emission was 416,474t and there were 5,000,000t of emission per million TEU.

We advocate global Paris Climate Agreement and the promise from Chinese government to reduce 60-65% of carbon emission per unit GDP on the basis of 2005 in or before 2030. In order to meet the challenges of climate change and policy change, we seek for suitable energy saving and reduction of emission methods for ports and other general operation. We establish "Reduce Emission Management Regulation" and assign reduction of emission target to subsidiaries. All of our subsidiaries supervise and follow up their energy efficiency performance with prompt ratification to ensure our energy conservation index can be met. We take comprehensive measures to reform the operation of the port, upgrade with modernized electrical port equipment, use clean energy actively, reduce traditional energy emission and reduce the release of greenhouse gas such as carbon dioxide.

"Green Port" in 2017. We pursued "The Change from Oil to Electricity", achieved automation upgrade and the transformation of shore power supply. For instance, the "Oil to Electricity" project for the gantry cranes was very successful in 2017, and the coverage increased to 85.00% with 31.00% growth from last year. With these low carbon operation methods, we are getting close to our goal of creating a "Green Port".



### Case: Promoting the Upgrading of Port Automation



Xiamen Ocean Port is developed as a trump in the core area of Southeast International Shipping center, which is the first intelligent, zero emission, safe and fully automated container port in China. It can achieve fully unmanned operation and be called as the "Devil's Port" in the industry. After full automation is achieved, the total carbon emission from Xiamen Ocean Port will be 15.00% less and energy consumption expense will be less than a normal port.

Xiamen Ocean Port has lots of achievements in low carbon emission and environmental protection, and it is the first automatic port with no internal combustion engine driven horizontal transport, but to use power to drive the handling on the orbit completely. Such method could help us save over 25.00% of energy than traditional ports, and it is zero carbon emission and environmental friendly. The conveyance of containers in this port is done by electrical equipment. Automatic navigation vehicles (AGV) are powered by lithium battery for the first time with "Opportunity Recharge", and it makes battery powered 200ah large load transport vehicles become a reality. Secondly, we created high efficiency operation mode to improve energy utilization and reduce unnecessary consumption. The operation of Xiamen Ocean Port is controlled by central control room computer system which merges several technologies together, such as AI, operational research decision and system engineering theory. This kind of operation combines the world's most advanced technologies, and it could achieve high efficient and intelligent management and plan the best paths after considering afety, efficiency and energy consumption. The container location intelligence management could improve yard utilization; automatic orbit could arrange containers for next voyage to improve efficiency and mismatching rate, AGCs work together with the door frame trolleys to ensure no waiting time is wasted, therefore it creates high working efficiency and energy upment utilization.



Expense on consumed energy decreased by about 25%



Xiamen Ocean Port is the first fully automated port in China, and its power driven equipment and fully automatic working operation reduce much more energy consumption and emission than traditional ports. It reduces negative impact of the large amount of carbon dioxide and waste gas emission; and can be regarded as a truly environmental friendly and zero emission port that is capable to improve handling efficiency reducing human capital cost.

### Knowledge Tips: What is hipping Shore Power?

Shipboard shore power means that ships rely on land electricity supply rather than using self-contained auxiliary generator when berthing at the port. If ships operate by using self-contained auxiliary generator when they berth at the port to maintain production and living needs, it would release much more harmful substances. According to statistics, carbon emissions from berthed ships' self-contained auxiliary generator is the most important segmentation to influence ports and harbor cities' air quality and that accounts for 40.00% to 70.00% of total carbon emissions for the port. Therefore, if ships rely on shore power supplement when berthing at the port, it would significantly reduce the release of harmful substances.



# Case: Generalization for Shore Power Transformation

Nowadays, most vessels are still using bunker oil or inferior diesel. One vessel which uses diesel that contains 3.50% sulphur will release as much chemical carcinogenic pollutants as 210,000 National Level Four heavy trucks per day. . Experts announced that, pollutions from shipping becomes the third major source of air pollution following automobile exhaust and industrial emission. Most of the ports in China are located in Yangtze River Delta, Pearl River Delta and Circum-Bohai Sea Area which are populated areas. If these cities are covered by carcinogenic gas, it will cause huge damage to the people lived in there. Control the spread of exhaust gas is important to improve shipping pollution problem. The joint preventive management from these areas must be set up urgently.

The domestic leading ports have started practicing shore power engineering. This project mainly focuses on regular collaborated liners, and their collaborated companies to make shipping transformation at the same time of implementing shore power engineering. When oil price is high, there is huge cost differentiation between using shore electricity directly and using oil to generate electricity, therefore both the port and the shipping companies can benefit from this project. China COSCO Shipping Corp seizes the economic and environmental advantages from shore power engineering. Therefore, we fully invested in the Yangzhou port shore power engineering project. We have four to five 10,000t vessels docking in the port every month, and we can provide power to them by connecting the vessel cables to our high-voltage pile directly after the shore power engineering project. It could reduce noise and pollution emission from the vessel's selfcontained auxiliary generator, and reduce the environmental impact to the harbor cities. Meanwhile, it could bring us economic benefits.

International import and export trade occur frequently at the port but the power frequency of foreign vessels are incompatible with the Chinese standard. Therefore, we install frequency converters to transform 50Hz into 60Hz for foreign vessels. After the shore power project is implemented, it is predicted that emission of carbon dioxide will be reduced by 850 t, sulphur dioxide will be reduced by 930, and nitric oxide will be reduced by 251. It will cause substantial economic and environmental benefits. In the future, China COSCO Shipping Corp will continue implementing this sustainable development to other ports.





# Protecting Marine Biodiversity

troduction: Ocean is the birthplace of life. It not only covers 71% of the earth's urface area and 99% of the habitat size, but also plays an important role in the volution of human civilization. Marine transportation business can have a great mpact on the marine environment, such as carbon dioxide and other greenhouse as emissions, garbage from vessels, loading and discharging of ballast water, etc. ailure to institutionalize the management of these acts will lead to pollutions of ne marine environment and destroy the biodiversity. Among these problems, the sue about biological invasion caused by ballast water is arousing the concern of ll stakeholders in the world. At present, the issue has been listed as one of the bur major threats to the ocean by the Global Environment Fund (GEF).

China COSCO pays close attention to the protection of marine environment. Our container transport business operates 355 shipping routes which covers 90 countries across five continents and we have 289 port routes. These large number of shipping routes and wide coverage have a great impact on the ocean. In order to alleviate the influences on marine biodiversity, we actively promote related

regulations of ballast water management to ensure the reasonable loading and discharging of ballast water, and reduce the possibility of bringing exotic species to local waters to the greatest extent during the shipping process.

n the following chapter, you will see how we reduce the impact which shipping ndustry have on marine biodiversity through ballast water management.

**Environment** Topic

#### Environment Topic | Protecting Marine Biodiversity

Therefore, it is imperative to manage the ballast water from vessels systematically and conventionally. In 2004, the International Maritime Organization (IMO) developed the "2004 International Convention for the Control and Management of Vessel Ballast Water and Sediments" and related implementation guidelines to help the government and related parties reduce the risk of introducing harmful aquatic organisms and pathogens from ballast water of vessels and sediments. In 2017, the Ballast Water Management Convention, which was participated by 61 countries around the world, went into effect. This convention aims to prohibit the invasion of aquatic organism species through ballast water of vessels.

For the loading and discharging of ballast water, China COSCO has established a strict system to standardize the management. We have formulated policies and guidelines such as "Ballast Water Management Guidelines" and "Ballast Water Management Plan" to prohibit any act of violation of the conventions. Specifically, we manage the ballast water through four links, namely operation, replacement, safety inspection and record of the ballast water, to ensure the protection of marine biodiversity namely. We require that all ships should try to avoid loading the ballast water in restricted areas and places, such as areas where pathogens and pests spread and breed. We also require the crew to clear the ballast water sediment in time, and at the same time, to avoid unnecessary ballast water discharce under the condition of safe caroo handling.

When we need to replace the ballast water, our ships should replace it in the location where is at least 200 nautical miles from the nearest land and at least 200 meters deep. In exceptional cases, the ships should be replaced in water as far away as possible from land, and at least 50 nautical miles from the nearest land and at least 200 meters deep.

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We require the Captain to pay close attention to sea conditions and weather to ensure that the ballast water is replaced in good weather. The safety inspections of the ballast tanks should be conducted regularly to ensure the ballast water treatment equipment is in good condition.

On each ship, there will be a designated rew who records the operation of the ballast water in the 'ballast water record book', and each operation record is signed by the Chief Officer, and each page is signed by the Captain. The 'ballast water record book' is in the form of bilingual leaflet, and is kept for at least two years to be examined by the authorities. In addition, we require the Captain to be familiar with and comply with the port's reporting system on ballast water, and actively cooperate with local port authorities for inspection and sampling.

oading and discharging of the ballast water has a large impact on marine biodiversity. When a ship is loaded with ballast water at the port of embarkation, the water in the ballast tank may carry thousands types of marine organisms such as bacteria, microorganisms, and invertebrates, etc. They can enter the ballast tanks through seawater filters and ballast pumps. and can stay alive even during a few months of vovage. When the ship unloads the ballast water at the port of destination, these marine organisms will be discharged into the waters of the port of destination to form an alien species invasion. More than 10 billion tons of ballast water is transferred by ships each year, and up to 7,000 exotic species migrate with the ballast water around the world every day. These exotic species are responsible for the breeding of harmful aquatic organisms and pathogens, posing a serious threat to local people's health, animals' and plants' survival, and the marine ecosystem.

Managing Ballast System





Ballast water means the

water and the suspended substances contained in the vessel for the control of draft, trim, heel, stability or stress. More colloquially, when a vessel

is offshore, the ballast tank will be loaded with ballast water, so that the vessel can keep afloat steadily in the water. For example, when the vessel is empty, its stability and draft cannot meet the safety requirements, therefore it needs to load the ballast water to adjust the vessel's floating state. When the ship is unevenly loaded, its local force is too large, and it needs to use ballast water to balance the stress

### Knowledge Tips: What is ballast water ?





# **Environment** Topic

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# Green Ship Recycling and Environmental Processing of Voyage Waste

The number of Chinese merchant vessels accounts for more than 10.00% of that of the world while container slots accounts for over 20.00% of that in the world. Our shipping capacity ranks the top five across the world. Chinese shipping industry has played an important role for the world economic development. After the outbreak of the financial crisis in 2008, the shipping industry in the world experienced recession and the dismantling of old vessels accelerated worldwide which caused safety, environmental and health problems. As one of the major shipbreaker countries in the world, China has always advocated "green ship recycling" and made efforts for it. As Chinese largest container shipping company, we actively implement green dismantling methods and implement strict standards on supplier selection in the ship recycling business.

A healthy marine environment is the basis for the sustainable development of the shipping industry, and therefore strict management of ship's sewage and garbage is necessary. In 1967 "Torre Canion" cruise ship hit the reefs causing massive pollution in the nearby waters and coasts, and brought huge losses to Great Britain and France. International Maritime Organization IMO set up a special "Legislative Committee" and the introduction of the International Convention for the Prevention of Pollution from Ships - "MARPOL 73/78 Convention on Pollution Prevention." We care the marine environment and require our crew members to follow the established Ship's Garbage Management Plan and COSCO Shipping Lines Waste Oil Residues Disposal Instruction, so that we can minimize the negative effects on marine environment.

In the following two sections, you will understand how we implement green ship recycling and how we process the garbage.

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Environment Topic | Disposing Vessels and Waste in a Green Way

Green Ship Recycling

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When vessels reach their end of life or need to be disposed due to other reasons such as termination of operating license they will be dismantled. More and more vessels are dismantled and recycled due to the increasing demand for recycled steels and overcapacity in container shipping industry. Ship-breaking business plays an important role in the cyclic development of the shipping industry. The steel recycled from dismantling vessels is essential in alleviating the pollution of marine environment.

In fact, ship-breaking business could bring about side effects not only in social aspects but also on the protection of environment. For example, in the process of breaking ships on the beach, as there is no crane available, workers have to use simple tools to do the cutting. Moreover, worker are exposed to noxious gas without having any protective masks, which pose a threat on their health and safety. Nowadays, some companies begin dismantling work without proper certification, the garbage brought about could cause environmental pollution and mismanagement could give rise to incidents.

party to green ship recycling in 2017.

Ship Breaking Working Site

Our government actively promotes green ship recycling since 1990s and is clearly against dismantling ship on the beach. In February 2002, the State Environmental Protection Administration signed the Memorandum of Building Cooperation in Environmental Protection with Housing, Planning and Environment division of Holland, and began their cooperation in the area of green ship recycling ever since then. In order to implement that memorandum, one hulk from P&O Nedlloyd was handed to and dismantled very well by a Chinese ship-breaking company in July 2017. In 2016, the PRC State Council revised the Regulation of Prevention of Environmental Pollution by Ship Scrapping published in 1988 to reduce the phenomenón of illegal ship-breaking. Under the regulation, the shipping-breaking companies have to prepare Environmental Impact Statement before they commence business and the statement should include evaluation of location, the surrounding area, scale and conditions of the business, anti-pollution measures and the expected effects of the business.

We actively responded to the State's call for "Green Ship Recycling" and chose the leading ship-breaking company and handed over one of the vessels that reach the end of its life for dismantle. The reason why we chose this company is that its shipbreaking business is conducted in accordance with the Hong Kong Convention and regulation enacted by the Europe Union in terms for breaking ship in a safe and less polluted way. Moreover, it also strictly complies with the rules underlying in the General Regulation Green Ship Recycling established by National Development and Innovation Committee of PRC, and it promotes the concept of breaking ship in a safe and green way such as never let out untreated sewage. and municipal solid waste, monitor noise pollution, moistening asbestos products to prevent dust pollution. In 2015, the President of People's Republic of China Xi Jinping visited the company due to its outstanding performance in the area of green ship recycling.

Although green ship-breaking cause cost pressure, we still choose this way to deal with our hulk, so that we can properly protect the marine environment and living conditions of our surroundings. Good marine environment is the foundation of shipping industry and we will stick on green ship recycling in the future and try to be the role model of other shipping companies and make contribution to the sustainable development of the shipping business



# Voyage Waste

S hipping activities to some extent will cause marine pollution. The main sources include tank-cleaning water, ballast water, oily water, sewage, garbage and other poisons. Besides, oil, toxic liquid and exhaust gas discharged from the oil incidents give rise to marine pollution as well.

In 2017, 1.926.6m3 garbage from our owned vessels were handled, which decreased by 2.40% compared to last year of 1.974.17m3. The ship owners of leasing vessels were responsible for the handling of garbage. 7,676.94 to liy water from our owned vessels was dealt with which was decreased slightly compared to last year of 7,657.31 65,065.81 oily water from leasing vessels was disposed in 2017 and increased by 16% compared to 55,922.51 to f 2016.

In order to prevent marine incidents and pollution, and to protect the marine ecosystem, we established *Ship's Garbage Management Plan* with respect to *MARPOL 73/78 and Resolution MEPC\_219 (63)*, *MEPC\_220 (63)*. The plan defines the responsibility of everyone on board and requires that all crew members should attend training conducted by management about the collection, disposition and storage of garbage. All garbage should be stored, incinered and disposed after being classified and processed. There should be bilingual (Chinese and English) placards displayed on every garbage. Garbage that cannot be disposed on board should be handed over to the professional reception facility from the ports and crew members should make records of that.

The oily water is unavoidable during the process of launching and sailing. If there is oily water leakage or discharging oily water before

proper handling, oil slick will be appeared. The oil slick will block the sunshine to some extent and pose a threat on the photosynthesis of plankton. Then the level of oxygen will be decreased and the living conditions for marine animals would be impacted over a period of time.

We have established COSCO Shipping Lines Waste Oil Residues Disposal Instruction to manage the risk, which presents the whole process of dealing with waste oil residues. The Marine Operating Center is responsible for managing the sludge disposal of all vessels. It is required that management personnel make arrangements two weeks before reaching the port where the sludge will be removed according to the monitoring data. MOC should designate persons to monitor the work of disposing waste oil residues. When disposing waste oil residues, our supplier adopts a two-stage degreasing method. First stage is to separate oil by making use of gravity, and the second stage is breakingcoagulation, which relieves the stress of disposing waste oil



Environment Topic | Disposing Vessels and Waste in a Green Way

We also created Shipboard Oil Pollution Emergency Response Plan to provide guidance for crews with respect to the steps to be taken when a pollution incident occurred or is likely to occur, and also to minimize the side effects brought by the oil leakage incidents. Whenever an oil spill occurs on board, ship's crew on duty should report to the Captain or responsible officer as soon as possible.

The Captain or responsible officer should send out alarming signal immediately , and organize all crews to take actions. The responsibility of crews when oil spilling emergency happen were

presented in the "Emergency list for shipboard spillage "established by us.

We have been emphasizing the importance of proper disposal of garbage and waste oily water and give guidance to our crews in their daily work. We will working hard on enhancing the awareness of protecting marine environment, on reinforcing the management of disposing garbage and waste oily water. In this way we can minimize marine pollution caused by shipping activities and make contribution on the sustainable development of shipping industry.

Rank	Locations in Charge of	Duties
Captain	Bridge/site of oil spillage	General commander, responsible for contacting outside
Chief officer	Site of oil spillage	Assist chief engineer to be the commander at site of oil removal
Second officer	Bridge/site of oil spillage	On duty and take emergency measures ,responsible for making spot record, responsible for communication with outside
Third officer	Site of oil spillage	Provide and distribute pollution prevention supplies. Direct the removing boat ,lower it, clean and remove spilled oil
Boat swain	Site of oil spillage	Provide and distribute pollution prevention supplies to crews and assist the lowering of boat, clean and remove spilled oil
Carpenter	Site of oil spillage	Check scuppers and shut down all passages concerned, clear and remove spilled oil
Sailors	Site of oil spillage	Sailors of the boat assist to lowering the boat and get down with it, clean and remove spilled oil
Chief engineer	Site of oil spillage	Commander at site of oil spillage, organize all crews to remove spilled oil
Second engineer	Engine room/site of oil spillage	In charge of the equipment in the engine room, clean and remove spilled oil
Third engineer	Site of oil spillage	In charge of the valves prevent soiled oil from spreading, clean and remove spilled oil
Electrical Technician	Site of oil spillage	Assist to lower the boat, get down with it, operate the motor clean and remove spilled oil
Electrical engineer	Site of oil spillage	In charge of electrical panel, clean and remove spilled oil
Chief motor man	Site of oil spillage	Provide and distribute pollution prevention supplies. Director of the removing boat ,lower it, clean and remove spelled oil
Motor men	Site of oil spillage	Sailors of the boat, assist lowering of boat and get down with it, clean and remove spilled oil
Stewards	Accommodations/ site of oil spillage	Watch fire for accommodations and shut down the passage ways concerned, clean and remove spilled oil
Chief cook	Galley/site of oil spillage	Watch fire in galley, shut down the galley ways concerned. Clean and remove spilled oil.
Other crews	Site of oil spillage	(Distribute emergency pollution prevention supplies)clean and remove spilled oil

Emergency List For Shipboard Oil Spoilage

# Ensuring the Legal Rights of our Employees

Nowadays, safeguarding human rights is a basic moral principle for international society. Human rights performance is concerned by many stakeholders including government, non-governmental organizations, trade unions and employees.

In order to safeguard the human rights of our employees, we have formulated a labor system that covers non-discrimination, child labor prohibition and prevention of forced labor, providing equal employment opportunities for both male and female employees, and creating a diversified work environment for them to be treated equally.

We value the employee's health and safety and capability enhancement. In 2017, we organized several safety education trainings and organized management personnel on the ports to participate in the training course on dangerous goods transportation. We also conducted training programs such as the "Elite Program" and staff

exchange programs to enhance employees safety awareness and management skills

We strive to create a warm working environment and enrich staff's life. In 2017, we conducted activities such as "Oriental Land Hiking" and "Autumn Walk" and held a talent show with the theme of "Remembering 2016 and Looking Forward to 2017" to let our employees to show their style and talent.

In the following four chapters, you will read about what we have done in safeguarding human rights, creating an equal and diversified employment environment, building staff capacity and creating a warm working environment.



We always consider employees' occupational health and safety as asurance of good health and safety to our employees, we regularly provide employees with protection products that comply with the state regulations; special protection for employees exposed to special occasions or catering services for that are exposed to toxic and hazardous substances; and provide health examinations for female employees and employees over 40 years old. In summer and winter, we take the appropriate protection measures to ensure that our people are in good conditions, for example we will delivery cool drinks in summer and provide heating machines in winter. These daily management measures guarantee employees a safe, comfortable and healthy working environment.

In order to enhance staff awareness of safety and occupational health, we organize various safety education and training activities. For example, in 2017, the Commission on Safety Production organized two special training programs called "Production Safety Law" and "Labor Safety". For the transport safety of dangerous chemicals, we organized 96 professional managers from ports to attend training. We hope that these safety education and training activities could help reduce the number of employees injured at work. When an employee is involved in a safety accident, we will take immediate measures to reduce the level of injury, analyze and summarize causes of the accident promptly so as to avoid any recurrence.

In 2017, there were 86 workers who got occupational injury, nobody got hurt in the headquarter, 2 occupational accidents happened in our container shipping business, which decreased 300.00% compared to 8 in 2016 and an injury rate of 0.08% in 2017. The total number of loss of working time was 90 days and there was no work-related death. In the pier business, a total of 84 work-related accidents occurred, increased by 44 and 90.91% compared to that in 2016, and the number of workers get injured was 6.00%. The total number of lost work days was 1,942 days with no work-related deaths. The increase in work-related accidents at the port in 2017 was due to the fact that the scope of this year's report covers two extra overseas ports for the first time, the port of Kumport in Turkey (38 work-related injuries in 2017) and the Zeebrugge port in Belgium (13 work-related injuries in 2017).

In order to enhance our employees' professional qualities, we have conducted many training activities for different levels of staff. We have added new training content based on documents such as the Administrative Measures on Training and Education and the Administrative Measures on Internal Trainers.

We pay attention to the cultivation of our employees, therefore we provide training sessions. In 2017, the headquarter of COSCO Shipping Holding provided 1,994 hours training, the number of trained employees was 32 and the training nate was 100%. In the container shipping business, the total training hours was 375,344, the total number of employees get trained was 18,018 and the training rate was 100.00%, For business at the ports, the total training hours was 23,480 and the total number of employees get trained was 435.

In 2017, our training aims to promote the improvement of employees' capabilities and performance. To this ends, we develop the curriculum system, innovate the training mode, further improve the training system and enhance the training management effectiveness. We have organized various training programs to continuously improve our staff capabilities.

### Case: Implementing Customer Service Competency Enhancement Training Program

In our container shipping business, we have carried out service manual discussion for domestic customers at the ports and launched the "Improving Customer Service" training courses. In June 2017, Customer Service Department collected the problems frequently encountered in each port through mail and distribute them to customer service department personnel for discussion and analysis. In addition, we have also developed a rotation training plan for customer service department to receive professional customer service training.



### Case: Implementing "Elite Program"



and abroad. 30 of them were arranged to work at the headquarters, Shanghai, Ningbo and other divisions. We focused on comprehensive training so we were arranged to work in different business positions, and had the opportunities to manage teams and projects. Another 20 students travelled to South Asia, West Asia, Latin America, Africa and other regions for a period of six months mainly focused on the market development, sales, extension of services and local agency supervision work. Human resources department and other related departments would give orientations in advance so that they can understand social, cultural environment and overseas work discipline and get adapt to the new environment as soon as possible.

In order to train a group of young talents with innovative spirit and also familiar with the overall businesses, we implemented and promoted the "Elite Program" in our container shipping business. At the beginning, a total of 649 young employees were enrolled. After taking the IO test. foreign language assessment and performance appraisal, a total of 69 employees were selected as members of "Elite Program." From March to September 2017, we organized these 69 trainees to exchange information on relevant positions in the headquarters. Each trainee is guided by mentor who helps him/her to set specific performance goals so that he/she can take on the job independently. Through job exchanges, research on various topics, business training and other means to further enhance the trainee's business ability and quality. After the training, we selected 50 outstanding trainees based on their performances and the quality of their research during the exchange. Based on the characteristics and circumstances of the 50 trainees, we arranged further exchanges opportunities for them at their home town

### Case: Developed "Employee Communication Program" and "Leadership Training for Middle and Senior Executives"

In order to improve the staff capacity and provide more professional training opportunities to employees, we implemented a staff exchange program in our port business in 2017. We have proposed a total of 22 advanced staffs to conduct job exchanges to strengthen their work empathy. The selected employees were from the headquarters, domestic ports and joint ventures. The plan was to enhance the cooperation between departments, departments and port companies, and to provide staff with advanced learning platform.





### Case: Conducted "Leadership Training for Middle and Senior Executives"

In order to build a world's leading port and cultivate a group of highly qualified international management personnel, we organized a leadership training program for the middle and senior management personnel in Hong Kong in November 2017 and selected 17 senior management officers from home and abroad, engaged well-known training institutions in Hong Kong to conduct interactive teaching, invited Hong Kong's professionals from outstanding port businesses to discuss the operation and management of business at the ports. These training programs broadened their international exposure and enhanced their strategic thinking and management skillsets.



Employees are the primary resources of the enterprise. Ensuring their occupational safety and enhancing the professionalism is an important way to maintain a sustainable operation of an enterprise. We value every employee's safety and provide them with occupational safety training and also protection measures. In addition,

we devoted effort to cultivate our talents by providing targeted training to employees at different positions so that they can do better in their positions and develop their own sense of ownership through the study of occupational and management skills.

W e have established a sound system of labor and employment according to the provisions of the Labor Law. We have fully implemented the Global Compact and corporate social responsibility through the system of Employee Management Procedures and Procedures for the Recruitment of Government Personnel. We resolutely support the Universal Declaration of Human Rights and strictly comply with international conventions and rights with respect to human rights and prohibition on child labor, discrimination and forced labor

We insist on equal treatment of employees of different nationalities, races, genders, religious beliefs and cultural backgrounds with respect to issues of employment, wages, promotion, dismissal and retirement. We strictly implement the national policy on ethnic minorities, carry out the freedom of religious belief and respect the habits of ethnic minority employees. In 2017, we had a total of 467 ethnic minorities. There were no discriminatory acts in our companies and no incidents or complaints of violations of the rights of ethnic minorities or freedom of religious belief occurred.

We strictly abide by national laws and regulations in labor and employment and strictly prohibit the employment of child labor. The Human Resources Department has set up detailed hiring rules and review procedures to avoid hiring child laborers under the age of 16 by mistake. At the same time, we also set up the "Procedures for Saving Child Labor" as required by the SA8000, a social accountability standard, as a remedy for hiring child labor due to mistakes. In 2017, no child labor was found in our operation sites.

We strictly abide by the provisions of the Labor Law and fully respect employees' choices. We will put an end to mandatory labor for any reason, nor will we restrict our personal liberty. We will arrange orientation for every employee, give introductions of labor rules and regulations so that employees fully understand their work rights and business. In 2017, there was no forced labor reported at our locations.

Employees are the core of every enterprise. Respecting the human rights of employees is one of the prerequisites for the healthy development of an enterprise. As a large state-owned enterprise, we strictly abide by international conventions and recruitment systems, uphold the principle of non-discrimination, respect every employee, strongly prohibit the use of child labor and forced labor, and strive to safeguard and guarantee the human rights of our employees.

#### Gender Statistic of COSCO Shipping Holding of 2017 (Unit: Person)



At present, male employees account for 72.01% of all employees, while female employees make up 27.99% of all employees. This is reasonable due to the particularity of the shipping industry which is relatively higher risk and require greater physical exertion for many positions in land yard, ports, docks, etc. Therefore, higher proportion of male staff is normal. Nevertheless, we still attach great importance on females and would like to broaden the employment channels for them. For example, Xiamen Yuanhai Wharf set up a "Team of Heroines" to carry out remote automatic operation of container in the central control room.

# Case: Xiamen Yuanhai Wharf set up a "Team of Heroines" for remote automatic operation of containers

Xiamen COSCO Shipping Lines Co., Ltd set up a "Team of Heroines", which is made up of 3 females aged 27 being responsible for the automatic remote operations, in the container depot, both the roll-over and container-carrying vehicles have been automated, but the process of deploying containers need to be handled by people to ensure safety. As a result, remote operators have major responsibilities of operating and inspecting the safety of containers' lifting process based on viewing the monitoring screens. The "Team of Heroines" takes the advantage of female employees' circumspection.

### Maintaining Equality and Diversity

We strive to maintain equal and diversified employment opportunities, attract, unit, motivate and hire international talents and actively promouting lobal operations and development. We strictly abide by the *Staff management Procedures* and *Organization Officials Recruitment Procedures* and other systems to ensure that recruitment is done following the "merit-based enrollment" principle. By the end of 2017, the total number of three companies in COSCO Shanghai headquarters, COSCO Shipping lines and COSCO Shipping ports. Among them, the number of fregular employees was 27,733, while the number of informal employees (labor services engaged from third-party companies) was 9,897. Among regular employees, and 5,667 in overseas countries. According to positions, there were 29 management staff and 31,429 other employees. According to gender, there were 1,970 male employees.

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Social Topic LEnsuri

#### Domestic and Foreign emloyee proportion of COSCO Shipping Holding of 2017



Mainland Employee Hongkong Employee Foreign Employee



According to the age range, the number of the employees under 30 was 5,723 people; aged 30 to 50 was 18,669, and there were 3,341 employees aged above 50.

In 2017, the number of employees resigned from COSCO Holding Company is 1,259 and the demission rate is 4,54%. Among them, nobody resigned in the headquarter, the number of that in term of COSCO Shipping lines was 711 people, and the rate was 3.95%, of whom 269 were retired. COSCO Shipping Ports had 548 people resigned and the demission rate was 5.70%. We respect our employees' decisions. When employees resigned, we handle their resignation according to law ) Opinion

#### 11

The establishment of 'Team of Heroines' is conducive in developing the advantages of female employees. This can expand employment opportunities and promotion for women; it also contributes to the transformation and upgrade of the port in a very special way. *//* 

#### -Chen Yipeng, deputy general manager of Xiamen COSCO Shipping Lines Co., Ltd



We care about our female employees. The trade unions formulated the Special Collective Contract for Special Interests of Female Employees and arranged gynecological examinations for female staff annually. Women workers over 40 years old will get extra inspections once a month, and all female workers will get monthly special health and labor protection fees of ¥100 (i.e., sanitation fees) for female workers. The Company also set up "Love Mummy Cottage" to monitor the situation of female workers during pregnancy and provide private, comfortable and convenient place for pregnant women and mothers in lactation period. This cottager received a lot of positive feedback. In addition, we provide equal remuneration for men and women for equal work, guaranteeing a 1: 1 basic wage income for male and female employees in the same level of position.

We work hard to maintain good relationships with our employees. Trade unions, as labor representatives, signed the Collective Bargaining Contract with the general manager and establish a labor dispute mediation system. In the event of labor disputes, the union will mediate and provide legal services. If it is necessary to resign staff according to law, we will explain the situation to the trade union or all staffs. We have also set up a system of democratic management of employees and hold a meeting of employees every year to listen to the reasonable suggestions from staffs. When it comes to major corporate decisions, we use the workers' congress, local area network, newspapers, posters and other means to notify all employees.

Respecting the equality and diversity of employees and maintaining good relationships with them are fundamental for the steady development of the enterprise. Each employee plays an important role in his/her respective position. Employees of different ages, races and nationalities get together to create a prosperous future for us and to form a charming humanistic landscape. We care about female employees and their career path. We regard good relations with employees as the balance of business development. Once the balance is broken, our future development will be affected.

# Creating a Warm Working Environment

In order to provide our staff with a warm working environment, we have established system of vacation and insurance as employees benefits. Based on "Create Value, Develop Together" concept, we have formulated the Employee Pamphlets and Labor Insurance Management Procedures, which defines employees vacation system and implemented paid leave, maternity leave, family visits leave and enhance the cohesiveness of the team. We provided employees with various kinds of benefits such as daily lunches, annual medical examination, and enterprise annuity system in accordance with the relevant state policies which will provide retired employees with quaranteed income.

We have also set up a sound social insurance system to handle pension, medical treatment, work injury, maternity insurance, unemployment insurance, housing fund, supplementary housing fund and traffic accident insurance (commercial insurance) for employees according to the provisions of the state and local governments. The payment rate shall be in accordance with the provisions of the state or the place where they are located. We withhold and pay the personal insurance on behalf of the employees.

In addition to holiday, insurance and welfare benefits, we also organized various employee activities both at home and abroad to enrich their lives and created a harmonious and warm working environment. In 2017, we carried out a variety of employee activities, for example, walking activities and art shows. We also invited employees working in overseas ports to attend Christmas parties.

### Case: Organizing "Oriental Land Hiking" and "Autumn Walking"

In order to enhance employees' daily physical training and create a positive and progressive corporate culture, COSCO Shipping Holding Company organized employees to go hiking and walking. These activities have promoted their friendship and enriched their lives.



# Case: Held "Remembering 2016 and Looking Forward to 2017" cultural

In March 2017, during the celebration of the first anniversary of COSCO Shipping Lines, we organized a variety of literary and artistic activities with the theme of "Remembering 2016 and Looking Forward to 2017", demonstrating our united and energetic spirit and culture.

# Case: PCT cared about Greek local staffs

Piraeus Port is an overseas port wholly-owned by COSCO Shipping Ports. In PCT, nearly 99.00% of employees are local employees. As we first entered the Greek market, due to the debt crisis, the labor market was in a downturn all year long and many enterprises were unable to guarantee the welfare benefits of their staffs. At PCT, we not only strictly follow the Greek labor laws and regulations, guarantee the wages of our employees, but also strive to provide benefits to our employees. For example, we provide our staffs with free lunches. For staffs in rural areas with few choices of restaurants, they had difficulties in dining and had to bring their own lunch to companies. In order to solve this problem, we offer free lunches, and encourage everyone to participate in the selection of caterer so as to ensure they have the right to choose. During Christmas, we invited local employees to bring their children to the company and prepare gifts for each of the children. Each year, we also select four PCT role models and reward them a week's trip to China to visit the headquarters. What we have done was to make Greek staff feel warm and aroused their enthusiasm for work. The rapid growth of PCT in recent years was due to the contribution of each of our employees.



PCT's employees in China and Greece



# Social Topic



# **Compliance Management**

In May, 2017, the "Belt and Road Initiative" International Cooperation Summit was held in Beijing. At the opening ceremony, President XI Jinping proposed to step up international anti-corruption cooperation and reinforce selfregulation and anti-corruption work to make the "Belt and Road" an honest road. As an international shipping company, we attach great importance to anti-corruption and compliance management. In 2017, we launched the "Probity Education Month" campaign, to educate and warn our people by showing them some negative examples. We also handled all petitions and whistle blowing cases during that period. In the area of procurement compliance, we formulated the Measures for the Administration of Suppliers and put forward specific requirements on the selection, management, supervision and punishment of suppliers.

In the following chapter, you will see what we have done in anti-corruption and the standardized procurement management.

### Anti-corruption and Compliance on Procurement Management



### 1. Realization of Anti-corruption

Social opic Compliance Management

We insist on integrity management and have zero-tolerance towards bribery and corruption. We formulated several regulations since 2017, such as "Guidance on Serious Business Operation Discipline (Version 2017), "COSCO Container Shipping Co., Ltd. Subordinate Units Nominated Inspection Methods for Secretary of Commission and Vice Secretary (Trial)", "CPC COSCO Container Shipping Co., Ltd. Regulations of Procedure of the Commission for Discipline Inspection (Trial)". At the beginning of each year, we convene anti-corruption conferences to deploy the anti-corruption campaign in the whole year, and then we break down our anti-corruption takes into specific units and departments. Furthermore, we notarize and implement responsibilities through signing the Statement of Liability and Integrity Agreement.

We insist on daily education and incorporate anti-corruption works into daily routine by organizing activities such as internal and external anti-corruption caution cases study. For instance, we promulgate integrity information every week through "Weekly Events" and publishes articles about probity and integrity every month through "Integrity Window" and "Sailing of Integrity" to ensure messages about integrity can be spread to staffs every week. All of our subsidiaries must participate in these anti-corruption building activities and we would also disseminate the thoughts of anticorruption to every subsidiary. They would publish anti-corruption articles in their internal journal to share integrity stories and disseminate anti-corruption thoughts to their teams. For instance, COSCO Container Shipping Co., Ltd. publishes special issue called "Yue Xue" while Shanghai Ocean Shipping Co. Ltd. publishes special issue called "Qing Feng". In order to improve the integrity awareness of cadres, the Company organizes professional integrity knowledge

quiz and interviews before new cadres are being promoted.

We establish anti-corruption impeach phone number and email to encourage staffs to report corruptions identified. We accepted 48 petitions with 100.00% handling rate and 90.00% completion rate in 2017. 5 petitions carried forward from previous year were settled. 7 cases of Party Conduct Registration were investigated and completed. 3 members were expelled from the Party and 4 members received inter-Party warning through discipline review. 5 employees were dismissed; 6 have received reprimand letters, 21 have received verbal warning and 20 have received reminders. Eventually, the Company retrieved economic loss of total amount of RMB 638,600 which were confiscated from illegal proceeding.



Anti-corruption is related to the development of our business. Throughout the history, thousands of cases showed us how organizations fell from its most glorious day to the darkest moment after the malversation was uncovered. As ancient wisdom said "To have the ability to flow farther away, you must focus on building its core." We must cut off and resist thoughts of corruption from the source to build an honest and integrity cadre team. As a large state-owned enterprise, the behaviors of COSCO attach high attentions to employees, government and the society. Therefore, our Company should play the leading role in anti-corruption activities in the whole industry and provide satisfactory results to the public and the country. The road of anti-corruption is long, and we bear heavy responsibilities. Case: Integrity Month

In September 2017, we conducted Integrity Month activities with theme of "*Build and Advocate Integrity*" with different kinds of educational programs and substantial contents to help Party members and employees improve their awareness of integrity. According to the statistics during the Integrity Month, in our container shipping business, we organized 115 group studies, 105 Party lectures, 129 integrity working symposiums and 19 special tutorship seminars. There were more than 5,700 employees participating and Integrity knowledge Q&A activities. We also organized 55 visits to Anti-corruption Education Base with over 1,280 employees participating and broadcast the anticorruption education film for 254 times for over 5,090 employees. During the activities, the Company collected 143 paintings, 91 photographs, 70 solicit articles and 272 mottos. This Integrity Month helped our Company to expand the education, promulgate our core value, gather positive power and further promote the Party cadres' discipline and integrity awareness.



The Commission for discipline inspection organizes a total of 39 people visited the Shanghai "East first Tilangiao prison prison".

#### 2. Compliance on Procurement Management

Large shipping companies focus more on the compliance of supply chain and its influences on environment, society and economy. In order to supervise and control risks and maintain health of the whole supply ecosystem, COSCO formulated Vendor Management Regulation which requires vendors to conduct business based on the applicable laws and regulations.

We improve the purchasing system and build vendor qualification review system to select qualified vendors for further verification by the specific review team. The contents of qualification review mainly include background information of the supplier, its main achievements, capability of supply and service guarantee, capability of quality assurance, customer service scheme and compliance history. These qualified vendors will appear in approved the vendor list, and purchasers can only select the vendors from the list.

Based on vendors' reputation and service quality, we grade vendors into five levels from A to E. We will preferentially cooperate with those vendors in higher level with good reputation, quality and environmental protection policy. For those Level E vendors, elimination process is implemented and they will be banned from doing business with COSCO in three years. For those vendors who have committed commercial fraud, corruption, business misdeeds, poor credit records, poor product and service quality and security threat, we will blacklist them and will never cooperate with them. Internal Audit department

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Qingdao branch - Sui Minglei calligraphy works "honesty and dedication respect justice and abide by the laws "

monitors the whole purchasing processes to make sure fair and impartial vendor management. We adhere Purchasing Management. Regulation and insist on sustainable development and build healthy strategic partnership with vendors to achieve mutual benefits and development. More than 7,000 vendors exist on the list in 2017, they are classified into four categories: Port & Pier, Agency, Sewage Disosal and Services.

Purchasing plays a significant role in affecting the cost and operation of a business. The variety of items to be purchased is quite long, the purchasing process is highly complicated and compliance risks existed everywhere. It will require experienced purchasers to exercise their judgement to verify the qualified material, control the procurement processes strictly in order to lower the compliance risks. It is a wise decision to ensure sustainable procurement for the Company based on purchase compliance to develop the strategic cooperation with the vendors, which would achieve win-win situation with cost saving.

# Social Topic

# Promoting Development of Local Community

In the process of expanding our business across the world, we attach great importance to building a positive influence in the local communities. In 2017, we actively responded to national call for taking targeted measures in poverty alleviation. We offered work opportunities across our port companies and agencies.

Taking targeted measures in poverty alleviation: According to statistics, we donated RMB 4,631,300 in 2017 for poverty alleviation. The beneficiaries are Wenxiang Village in Zhanjiang City, Yongde County in Lincang City and Sishitai Village in Yingkou City, We helped them to build the infrastructure and renovate school so as to make a small contribution to poverty alleviation.

Offering working opportunities: According to statistics, we generated 4,300 overseas working opportunities directly and over 10,000 of job opportunities indirectly. When we expanded our business overseas, we prefer to hire and nurture local talents, and our Chinese team offered management support. For example, only 6 out of 296 employees in Piraeus port in Greece are Chinese. In addition, we concerned about creating indirect employment opportunities and helping disabled people to find jobs. For example, the port company in Kumport, Turkey, indirectly created job opportunities for more than 5,000 outsourced workers in 2017 while also providing jobs for 18 persons with disabilities.

In the following two chapters, you will read what we have done in poverty alleviation in Yongde County, Yunnan Province, and seafarer internship program in the Panama area.

Social Topic Promoting Development of Local Community 小王能快势力。产取五人

Poverty Alleviation

Yongde County is a small town located in Lincang Prefecture of Yunnan in the southwest part of China. It has a population of 370,000 and a total area of 3,296.00 m2. Yongde lies to the east of Nu River and west of Nanting River. The county is remote and with bad traffic due to the fact that 95.00% of the total area are mountains. The available cultivated land area accounts for 2.24% of the total area due to the precipitous nature, although the land is fertile and the weather is sunv.

Yongde has been identified as a national-level impoverished county with 1/3 of its residents living under poverty. The economic development is with difficulty owing to the aggregated negative effects from topography, communication and economy. According to the data from the National Bureau of Statistics of China concerning household income, expenditure and living conditions, and the per capita disposable income of residents in Yongde is RMB 4,818 for the first half year of 2017.

In 2006, we allocated specific fund to help the residents in Yongde county to live out of poverty and fulfilled its corporate social responsibility. Most importantly, this action worked in consistent with the state's call for "Taking targeted measures in poverty alleviation". Under the arrangement of our Group, our subsidiaries and we took active participation in the work of poverty alleviation. It has been 7 years since the framework agreement signed with Yongde county that we committed to allocate educational resources to Yongde in the name of a program called "Wishes of Sprindrifts".

In 2011, we singed the framework with Yongde County to implement Wishes of Spindrifts' and till now the support has been lasted for 7 years. During these 7 years, our employees made donations to the onstruction of cafeteria and supported the educational work in three primary schools: Minquihea, Niuhuotang and Jianshan Primary School.



Moreover, in order to expand their exposure, we also invited children for the summer sailing camp to see the world outside. In 2017, we allocated RMB 200,000 for the "Wishes of Spindrifts", and took targeted measures to help 59 students to live out of poverty.

Apart from the "Wishes of Spindrifts", we also do charity work to improve the economic condition in Yongde. In 2017, we contributed RMB 4,000,000 to Yongde after signing the agreement with COSCO Shipping Charity Foundation. RMB 900,000 was for the road construction, RMB 400,000 was for the construction project of cultural square, RMB 1,830,000 was saved for educational support, RMB 120,000 was for the conservation program and RMB 750,000 was to build the standard clinics. Besides, we helped Yongde to build channels to attract investments from outsides. After that, Yongde sold 12,104 boxes of local tea and earned RMB 2,090,000.

The stability and development of our society is the safeguard for our Company. Our development heavily relies on the support from our society and responsible companies should make contributions to pay back. In promoting COSCO's globalization, we pay attention to the economic benefits on the one hand and care about our society on the other hand. In the field of corporate social responsibility, we still have a long way to go as a worldclass enterprise.

#### Social Topic | Promoting Development of Local Community



Teacher Sun Xifeng is taking part in the sports meeting with the children



<sup>11</sup> As a state-owned enterprise, we will not hesitate to do good deeds to fulfill our social responsibility and being committed to the call of our party. In the process of developing "Wishes of Spindrifts" program, we were deeply moved by students who work hard to exit from poverty and chase their dreams.

-Qingqin Liu, participate of the poverty alleviation program from our shipping company

I volunteered myself to be a teacher in Yongde. I saw many children whose parents are working in the cities and they are left behind in the hometown. I hope I can make some impacts and change them. I shared positive attitudes and helped them to build their dreams. I delivered them study skills and passion as well. The performance of the class I taught improved a lot, they moved up 4 places in term of the enrolment rate. Their destinies have been changed in some way. *II* 

-Xifeng Sun, volunteer teacher of Yongde from our Global Information Service Company

### Our Story

<sup>11</sup> At the beginning of 2014, after 10-hour bus journey we came to Yongde to support a little girl from the local family. Another little boy suddenly began to cry when we walked in, the parent said they were too poor to support him to study in high school. We decided to help him immediately. It turned out to be the best decision that I have ever made. In 2017, the boy was admitted to study in a medical college outside his hometown after all the hardwork. Now I still donate RMB 5,000 every year to help him realize his dream.

-Hao Ge, participator of "Wishes of Spindrifts" from our shipping lines compar



Xiaobing Li, whose dream is to be a doctor, is now studying in Chuxiong Medical College supported by Hao Ge

Cos

### Providing Employment Opportunities For Local Communities

P anama Canal, an important channel connecting the Pacific and the Atlantic Ocean, is one of the Seven Wonders of the World, and also known as "the Bridge of the World". The Panama Canal is an important "global trade barometer" for the maritime community. Each year, the Panama Canal hosts approximately 6% of the world's maritime trade. On June 26th, 2016, the opening ceremony for the new lock for the ships was held in the Panama Canal. COSCO Shipping Panamax would be recorded in history as the first new Panama ship to pass the new lock.



The development of the canal is inseparable from the contribution of talented people. The Panamanian government attaches great importance to the training and development of marine personnel and has always maintained close cooperative relationship with us. From 2006 to 2017, many Panamanian local universities, such as Panama Maritime University, have cooperated with us to build



seafarer internship programs. Each year, local universities deliver 3-5 interns coming to work at COSCO Shipping Lines (Panama) company so that they can gain some real experience on maritime shipping work. For each trainee, we pay for their living expenses and safety insurance on board every month. During the internship, interns can learn knowledge outside of textbooks. Many interns received a formal job offer and became part of us after the program. Now, many of them have grown as our business backbone.

In 2017, COSCO Shipping lines (Panama) Company had 62 full-time employees and provided 3 internships for local students. Although the size of the company is small, but they concern a lot about providing internship opportunities for local college students. Many companies controlled by COSCO Holding Company do the same thing in the local communities.



Providing internship opportunities for local students in Panama is good for both the students and our businesses, which is a win-win situation. We recruit students from both society and universities; cultivate them to be our talents which meets the needs of our business. //

-General Manager Xu Zicao from COSCO Shipping Lines (Panama) Company

Case: Panamanian President visited COSCO SHIPPING Group's headquarters



// On June 12, 2017, Panamanian President Juan Carlos Barrera Rodriguez delivered a televised speech announcing the establishment of diplomatic ties with China. On November 21st of the same year, President Barrera was on a state visit to China. He visited COSCO SHIPPING Group's headquarters and held talks with COSCO Chairman Xu Lirong. During the meeting, Chairman Xu Liyong said that it is necessary to strengthen and improve the training and cooperation mechanism between COSCO Shipping and Panamanian Maritime University, and work hard on the Internship training for students from Panama Maritime University.



Providing job opportunities for local communities and cultivating local talents are the responsibility of a multinational corporation. This can improve the local employment rates and ease social conflicts. We provides employment opportunities for the Panamanian region and for other COSCO ports across the world. This is the principle that we adhere to. As the world top shipping company, we will continue to adhere to this principle of creating employment opportunities and making contributions to local communities when we execute our strategy.



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#### 1. Index Table

Level	Code	Page
	A1. Effluent Related to waste gas and greenhouse gas emission, water and soil pollution discharge, harmful and harmless wastage:	-
	(a) Policies, and (b) Comply with relevant laws and regulations that cause important influence to issuer.	
	All. Varieties of emissions and relevant emissions data.	70-71
	A1.2 Total amount (t) and density (calculated in each production unit, each facility) of greenhouse gas emissions.	70-71
	A1.3 Total amount (t) and density (calculated in each production unit, each facility) of hazardous wastes.	70-71
	A1.4 Total amount (t) and density (calculated in each production unit, each facility) of none-hazardous wastes.	70-71
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A Environment	norr nazardods wastes emissions.	46-49
	A2 Usage of Recourse Policies of efficient resource utilization, including energy, water and other raw material.	
	A2.1 Direct/indirect energy (Electronic, gas or oil) consumption amount (calculated in KWH) and density (calculated in each production unit, each facility) by type.	70-71
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	A2.5 Total amount of package material (t) and the unit of production (if applicable) for manufactured goods.	29
	A3 Environment and Natural Recourse Policies of reducing important influence of environment and natural resource by issuers. A3.1	
	Descriptions of business activities which cause important influence to environment and natural resource, and descriptions of relevant management activities.	43-44
	B1 Employment Related to salary, dismissal, recruitment, promotion, working hours, holidays, equal opportunities, diversification, anti- discrimination and other treatments and welfares:	
	<ul> <li>(a) Policies, and</li> <li>(b) Comply with relevant laws and regulations that cause important influence to issuer.</li> </ul>	
	B1.1 Employee amount separated by gender, employee types, age group and regions.	72-73
	B1.2 Employee losing rate separated by gender, age group and regions.	72-73
B Society	B2 Healthy and Safety Related to safety working environment and guarantee employees to avoid occupational hazards: (a) Policies, and	
	(b) Comply with relevant laws and regulations that cause important influence to issuer. B2.1	
	The amount and ratio of deaths due to work.	72-73
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Describe occupational health and safety precaution, and relevant implementation and monitoring methods

	Environmental and social risk policies of supply chain management.	
	B5.1 Amount of vendors that separated by regions.	N/A
	B5.2 Describe conventions of vendor engagement, amount of vendors execute the conventions and execution and monitoring methods of conventions.	61
	<ul> <li>B6 Social Responsibility</li> <li>Related to goods and services' healthy, safety, advertisements, tags and privacy issues and relevant remedial measures.</li> <li>(a) Policies, and</li> <li>(b) Comply with relevant laws and regulations that cause important influence to issuer.</li> </ul>	
B Society	B6.1 The percentage of recalled products with safety and health problem from the sold and delivered products' amount.	N/A
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	B6.5 Describe policies of customers' information safety and privacy, and relevant execution and monitoring methods.	22
	B7 Anti-corruption Related to anti-corruption, avoid blackmail, avoid fraud and anti-money laundering: (a) Policies, and (b) Comply with relevant laws and regulations that cause important influence to issuer.	
	67.1 B7.1 Amount and litigation outcomes of proposed and concluded anti-corruption cases from issuers or their employees during the reporting period.	60-61
	87.2 Describe preventing methods and reporting procedures, and relevant execution and monitoring methods.	60-61
	B8 Community Policies related to join in community to understand requirements in relevant community and ensure operation activities could consider the community benefits.	
	88.1 Focus on category of contributions (e.g.: education, environmental issues, labour requirement, healthy, culture, sports.).	63-66
	98.2 Input resources in focused categories. (e.g.: cash or time).	63-66
	Input resources in focused categories. (e.g.: cash or time). O 2017 Social Responsibility Re	

Policies related to the knowledge and technique of improving employees preform their duties.

Each employee's average finished training hours separated by gender and employee type.

(b) Comply with relevant laws and regulations that cause important influence to issuer.

Describe the review of recruitment practices and avoid child labour and forced labour.

Describe the procedures need to be taken when discovering violation situations.

Percentage of training employees separated by gender and employee types (e.g.: executive management,

Code

B3.1

B3.2

B4.1

B4.2

51-53

B3 Training and Development

intermediate management.)

B5 Supply Chain Management

Related to prevent child labour and forced labour:

B4 Labour Standard

(a) Policies, and

Page

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B2.3

#### 2. Statistical Table

1) Energy consumption, waste and emission

Chart 1: COSCO Shipping Holding energy consumption indicators

Indicators	Indicators	Amount
Electricity	Water consumption (t)	395
	Per unit water consumption (t/per capita)	12.34
Water	Electricity (kilowatt-hour)	117,704
	Per unit electricity consumption (kilowatt-hour per capita)	3,678.25
Fuel consumption	Total fuel consumption by car (t)	1.2
	- Unitl fuel consumption (kg per capital)	37.5

Chart 2: Energy consumption, waste and emission of COSCO Shipping Line

Indicators	Unit	COSCO Shipping Line
	Electricity (kilowatt-hour)	5,684,010
Electricity	Unit electricity usage of ten thousand RMB output value (kWh/ten thousand RMB)	0.66
	Production water (t)	71,174.60
	Domestic water (t)	204,988.70
Water	Total water consumption (t)	276,163.30
	Unit water consumption of ten thousand RMB output value (t/ten thousand RMB)	0.03
~	Natural gas (m3)	422,758
Gas	Unit gas consumption of ten thousand RMB output value (kWh/ten thousand RMB)	0.05
	Fuel oil (mazout) (t)	4,609,030
	Diesel (light oil) (t)	182,050
Fuel	Total fuel consumption (t)	4,791,080
	Unit fuel consumption (kilogram/ Thousand ton per nautical miles)	4.80
	Grease (t)	8,506.24
Grease	Unit grease consumption (kilogram/ Thousand ton per nautical miles)	0.02
	Gasoline (t)	2,075
Gasoline	Unit gasoline consumption of million RMB output value (t/million RMB)	0.02
Greenhouse	CO2 (t)	14,900,262.80
gas emission	Average CO2 emission of unit time (kilogram/thousand ton per nautical miles)	0.72
	Oxynitride (t)	431,179.20
	Average emission of unit time turnover	0.02
Exhaust emission	(kilogram/thousand ton per nautical miles) Oxysulfide (t)	207 464 00
emission	Average emission of unit time turnover	287,464.80
	(kilogram/thousand ton per nautical miles)	0.0
	Oily water (t)	72,742.70
	Per unit of quantity of wastewater effluent	3.0
Effluent	(t/capital)	
	Domestic wastewater (t) Per unit of quantity of domestic wastewater	49,842
	(t/capital)	2.06
Waste	Hazardous wastes (kilogram)	1,926.60
	Per unit of hazardous wastes (kilogram per capita)	40
	Non-hazardous waste (kilogram)	92,400
	Per unit of non-hazardous wastes (kilogram per capita)	3.82
Dangerous goods	Operation quantity of dangerous goods (TEU)	136,739

Chart 3: Energy consumption, waste and emission of COSCO Shipping Ports

ndicators	Unit	COSC Shipping Port
	Electricity (kilowatt-hour)	441,835,179
Electricity	Unit electricity usage of ten thousand RMB output value (kWh/ten thousand RMB)	1,013.85
	Heating (ten thousand joule)	600,500
Heating	Unit heating usage of ten thousand RMB output value (ten thousand joule/ ten thousand RMB)	1.38
	Municipal water supply (m3)	2,592,635
	Wastewater of other institutions (m3)	10,756
Water	Water from other water supply facilities (m3)	12,218
	Total water consumption (m3)	2,615,609
	Unit water consumption of ten thousand RMB output value (m3/ten thousand RMB)	6.00
	Liquefied petroleum gas (L)	13,405
	Unit liquefied petroleum gas consumption of ten thousand RMB output value (L/ten thousand RMB)	0.03
	liquefied natural gas (L)	18,001,030
Gas	Unit liquefied natural gas consumption of ten thousand RMB output value (L/ ten thousand RMB)	41.3
	Natural gas (L)	407,908
	Unit natural gas consumption of ten thousand RMB output value (L/ten thousand RMB)	0.94
Fuel	Diesel (L)	59,065,133
ruei	Unit diesel consumption (L/TEU)	1.14
Gasoline	Gasoline (L)	1,294,114
Gasonne	Per unit gasoline (L/TEU)	0.02
Greenhouse	CO2 (t)	416,474
gas emission	CO2 unit emission (kg/TEU)	8.0
	Solid chemical waste (kg)	234,895
	Liquid chemical waste (kg)	238,782
	Other hazardous wastes (kg)	10,170
Waste	Wooden board (kg)	178,600
	Wastewater (m3)	510,315
	Other non-hazardous waste (kg)	8,640
Dangerous goods	Operation quantity of dangerous goods (TEU)	65,400

\*Remarks: Water, electricity, and gas are used for COSCO Shipping's headquarters building data. Fuel consumption, greenhouse gas emission, and exhaust gas emission data are statistics for ships that use fuel oil procured by COSCO Shipping Lines. The statistical data of wastes water and waste are the COSCO Shipping Lines building and the ships that use fuel oil procured by COSCO Shipping Lines.

#### 2. Statistical Table 2) Employee and training

Chart 1: Employee and training of COSCO Shipping Holding

Total	Total employee (person)	32
	Formal male employee (person)	23
By gender	Formal female employee (person)	9
	Formal employee age≤30 (person)	3
By age	Formal employee: 30~50 (person)	23
	Formal employee: ≥50 (person)	6
By employment	Formal employee (person)	32
category	Informal contracted employee (person)	0
	Mainland formal employee (person)	32
By area	Hong Kong formal employee (person)	0
	Foreign formal employee (person)	0
	Formal employees of Management level (person)	6
By level	Other formal employees (person)	26
_	Turnover amount (person) of formal employees	0
Turnover	Turnover rate of formal employees	0
	Deaths amount of occupational injury (person)	0
Occupational	The number of occupational injury (person)	0
injury	The total number of days lost (day)	0
	Injury rate by thousand person (‰)	0
	Trained formal employees (person)	20
	Total hours of training (hour)	1,994
	Average employee training hours (hour)	99.7
	Training rate of formal employees	63.00%
	Male trained formal employees (person)	17
	Male formal employees training rate	72.00%
Training	Female trained formal employees (person)	3
	Female formal employees training rate	33.00%
	Trained formal employees of Management level (person)	4
	Formal employees of Management level training rate	66.67%
	Trained other formal employees (person)	9
	Other formal employees training rate	34.62%

Chart 2: Employee and training of COSCO Shipping Line

		Amount
Total	Total employee (person)	24,190
	Formal male employee (person)	11,523
By gender	Formal female employee (person)	6,495
	Formal employee age≤30 (person)	3,551
By age	Formal employee: 30~50 (person)	12,100
	Formal employee: ≥50 (person)	2,367
By employment	Formal employee (person)	18,018
category	Informal contracted employee (person)	6,172
	Mainland formal employee (person)	13,581
By area	Hong Kong formal employee (person)	0
	Foreign formal employee (person)	4,437
Perland	Formal employees of Management level (person)	12
By level	Other formal employees (person)	18,006
<b>-</b>	Turnover amount (person) of formal employees	711
Turnover	Turnover rate of formal employees	3.95%
	Deaths amount of occupational injury (person)	0
Occupational	The number of occupational injury (person)	2
injury	The total number of days lost (day)	90
	Injury rate by thousand person (‰)	0.08
	Trained formal employees (person)	18,018
	Total hours of training (hour)	375,334
	Average employee training hours (hour)	20.83
	Training rate of formal employees	100.00%
	Male trained formal employees (person)	11,523
	Male formal employees training rate	100.00%
Training	Female trained formal employees (person)	6,495
	Female formal employees training rate	100.00%
	Trained formal employees of Management level (person)	12
	Formal employees of Management level training rate	100.00%
	Trained other formal employees (person)	18,006
	Other formal employees training rate	100.00%

Chart 3: Employee and training of COSCO Shipping Ports

Total	Total employee (person)	13,408
	Formal male employee (person)	8,424
By gender	Formal female employee (person)	1,259
	Formal employee age≤30 (person)	2,169
By age	Formal employee: 30~50 (person)	6,546
	Formal employee: ≥50 (person)	968
By employment	Formal employee (person)	9,683
category	Informal contracted employee (person)	3,725
	Mainland formal employee (person)	7,940
By area	Hong Kong formal employee (person)	513
	Foreign formal employee (person)	1,230
	Formal employees of Management level (person)	1
By level	Other formal employees (person)	13,397
-	Turnover amount (person) of formal employees	548
Turnover	Turnover rate of formal employees	5.70%
	Deaths amount of occupational injury (person)	C
Occupational	The number of occupational injury (person)	84
injury	The total number of days lost (day)	1,942
	Injury rate by thousand person (‰)	6
	Trained formal employees (person)	435
	Total hours of training (hour)	23,480
	Average employee training hours (hour)	80
Training	Male trained formal employees (time)	314
2	Female trained formal employees (time)	121
	Trained formal employees of Management level (time)	1
	Trained other formal employees (time)	424

### 3. Report Verification

### Independent assurance statement

### Scope and approach

DNV GL Business Assurance Group ('DNV GL') has been commissioned by COSCO SHIPPING Holding Stock Co., Ltd. ('COSCO SHIPPING Holding') to carry out an independent verification of the COSCO SHIPPING Holding 2017 Sustainability Report ('the Report').

The verification was performed against the DNV GL Protocol for Verification of Sustainability Reporting (VeriSustain ®), which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000(ISAE 3000) and the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines.

In addition to verify the contents disclosed in the Report, we evaluated the specified performance data using the reliability principle together with COSCO SHIPPING Holding data protocols for data measurement, recording and processing.

Performance and data disclosed in the Report refer to HKEx ESG Guide\_Appendix 27 <Environmental, Social and Governance Reporting Guide> ('HK-ESG')

We understand that the reported financial data and information are based on data from COSCO SHIPPING Holding's 2017 Financial Annual Report, which had been audited by third party. The review of financial data taken from the Annual Report is not within the scope of our work.

We planned and performed our work to obtain the evidence which is necessary to provide a basis for our assurance opinion. Our assurance engagement was performed against VeriSustain® with 'Principle Adherence' type, we are providing a 'moderate level' of assurance. A 'high level' of assurance would have required additional work at Group and site level to gain further evidence to support the basis of our assurance opinion.

### Responsibilities

COSCO SHIPPING Holding is responsible for the collection, analysis, aggregation and disclosure of information contained in the Report. Our responsibility in performing this work is to the management of COSCO SHIPPING Holding only and in accordance with terms of reference agreed. The stakeholders of COSCO SHIPPING Holding are the intended users of this statement.

DNV GL was not involved in the preparation of any information or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward any people interviewed and the verification by numerous public means to understand positive and negative comments on COSCO SHIPPING Holding. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement.

### Basis of our opinion

A multi-disciplinary team of sustainability and assurance specialists performed work at COSCO SHIPPING Holding headquarter. We undertook the following activities:

- Review of the current sustainability issues that could affect COSCO SHIPPING Holding and are of interest to stakeholders;
- Review of COSCO SHIPPING Holding's approach to stakeholder engagement and recent outputs;
- Review of information provided to us by COSCO SHIPPING Holding on its reporting and management processes relating to the Principles;
- Interviews with top management and senior managers responsible for management of sustainability issues and review of evidence to support issues discussed;
- Based on significant sustainability issues disclosed in the Report, visits to COSCO SHIPPING Holding's headquarter and 2 operation sites to review process and systems for preparing sustainability data and implementation of sustainability strategy,
- Review of supporting evidence for key claims and data in the report. Our checking processes were prioritized according to materiality and
  we based our prioritization on the materiality of issues at a consolidated corporate level;
- Performed sample-based checks of the processes for generating, gathering and managing the quantitative and qualitative data presented in the Report;
- An independent assessment of claim's reporting against the HK-ESG.

### Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe COSCO SHIPPING Holding's adherence to the Principles. In terms of reliability of the performance data, nothing came to our attention to suggest that these data have not been properly collated from information reported at operational level, nor that the assumptions used were inappropriate.

- General Disclosures: We reviewed the general disclosures reported in this Report and nothing came to our attention to suggest that the reported information generally does not meet the reporting requirement of HK-ESG and the reason for non-disclosure is explained.
- Key Performance Indicators: We reviewed the key performance indicators reported in this Report and nothing came to our attention to suggest that the reported information generally does not meet the disclosure requirement.

### **Observation**

The following is an excerpt from the observations and opportunities reported back to the management of COSCO SHIPPING Holding. However, these do not affect our opinion on the Report, and they are indeed generally consistent with the management objectives already in place.

- It is suggested to widen and deepen related sustainability performance information and data disclosure, to assure disclosed content and performance information to be matched with report boundary and scope
- It is suggested to disclose management method for sustainable materiality issues more clearly according to HK-ESG
- · It is suggested to disclose the evaluation criterion and processes about suppliers' sustainability performance in the report

#### Opinion for report content and quality of principles:

Materiality: COSCO SHIPPING Holding has established a materiality issues determination process within the company. The Report disclosed the materiality issues which identified through the determination processes and the relevant sustainability context. The Report also revealed the management approach and performance achievement through the transparent display of important sustainability information.

Stakeholder inclusiveness: COSCO SHIPPING Holding has established a mechanism for stakeholders' communication and engagement through multiple actions. Stakeholder expectation has been integrated into operation process, the results of this communication and engagement already influenced the setup of the sustainability strategy of COSCO SHIPPING Holding to a certain degree. The stakeholders' engagement and their focus has been revealed in the Report.

Responsiveness: COSCO SHIPPING Holding has setup a response mechanism to improve the responsiveness to stakeholders through establishing sustainability policies, objectives and target as well as improving governance structure, management systems and processes. With consecutive 3 years historical data and explicit context, the Report respond to the main stakeholder concerns about COSCO SHIPPING Holding's economic, social and environmental indicators and performance, especially of the multiple materiality issues as disclosed in the Report. The indicators and sustainability performance as disclosed in the Report was based on the identification and analysis in materiality issues that related with COSCO SHIPPING Holding's sustainability strategy.

Completeness: Within the reporting scope and boundary defined by COSCO SHIPPING Holding, we believe that the Report does not omit relevant information that could significantly influence stakeholders' decisions or reflects significant sustainability impacts during the reporting period.

Accuracy and Reliability: COSCO\_SHIPPING Holding has established a comprehensive sustainability performance information management processes, performance information and data about the key responsibility issues is accurately reflected in the Report. Per the requirements of moderate level of assurance, we believe the data/information presented in the Report are accurate and detailed for stakeholders to understand the organization's performance on material topics.

Neutrality: We consider the overall tone of the Report to be neutral and the presentation of information to be generally balanced. The emphasis on various topics in the Report is basically proportionate to their relative materiality.

Sustainability context: In the review of the audit team, we believe that the Report presents the performance in its own sustainability and general business context, through discussing the performance of the COSCO SHIPPING Holding in the context of the limits and demands placed on environmental, social resources at the sector and regional level.

For DNV GL - Business Assurance Group



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