

COSCO SHIPPING

中遠海控2016年可持續發展報告 Sustainability Report 2016



中遠海運控股股份有限公司
COSCO SHIPPING Holdings Co., Ltd.

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Part I Strategy Analysis

Speech of the Chairman

Year 2016 is a milestone in development history of COSCO SHIPPING Holdings Co., Ltd (COSCO SHIP HOLD). In face of severe and complicated global economic situation, slowdown of growth rate, continuous depression of demands of shipping market, and no significant improvement in imbalance of supplies and demands of the market, the Company completed the restructuring and integration, and focused its resources on development of container shipping and terminal business in a bid to adapt to new competition structure and development trends of shipping market, seize the opportunities of “One Belt, One Road” strategies, and elevate its competency.

Under the guidance of “one team, one culture, one target and one dream”, COSCO Shipping Lines Co., Ltd, affiliated to the Company, promoted many complicated and heavy tasks, such as comprehensive integration of institution and personnel, optimized configuration of fleet and container fleet resources, communication & integration of clients and supplies, optimized integration of domestic and overseas networks, clearance and improvement of business processes, formation and all-directional training of marketing team, and switch of shipping line IT system. After more than a half year of efforts, related work had progressed steadily and high-efficiently, the key tasks for business integration had been completed basically, and the unified marketing management system and customer maintenance system, and the unified business operation process and operation management system had been formed. After integration, the container fleet features richer shipping line products, wider service network and improved customer experience. The size of self-owned container fleet has increased greatly, and the number of self-owned ships totaled 300 and the carrying capacity reached 1.6 million TEUs. The company ranked the fourth place in the world for carrying capacity. By taking measures such as optimization of shipping network and carrying capacity arrangement, container fleet integration, supplier-related cost optimization and management cost optimization, the Company saw collaboration effects preliminarily.

Under the strategic framework for integration and restructuring, COSCO Shipping Ports Co., Ltd acquired China Shipping Ports Development Co., Ltd, and the scale of terminal assets expanded significantly. After integration, the number of berths operated by terminals affiliated to the company reached 158, covering 30 ports including five major port clusters in mainland China as well as hub ports in Hong Kong, Taiwan and other overseas countries. Important progresses had been made in project development, and three overseas M&A projects were announced in 2016, including acquisition of 35% equities in EUROMAX container terminal in Rotterdam, 90% equities in Stage II of Halifa Container Port in Abu Dhabi and 40% issued shares of APM Terminals Vado Holdings B.V. in Italy. Moreover, it also entered into cooperation agreement on large container berths with Singapore-based PSA Corporation Limited (PSA) and agreement with Hutchison Ports Holdings Trust. Moreover, COSCO Shipping Ports also researched and formulated new strategic development planning in addition to institutional restructuring and integration of the headquarters, and actively promoted the business integration of existing terminals invested, so as to bring their collaboration effects and improve the benefits.

Part I Strategy Analysis

The Company insists on integrating performance of social responsibilities with the whole operation and development processes at strategic level, and takes various measures to protect sustainability of the society and the environment. With respect to container shipping business, the Company took the measures to increase number of ships and lower the speed, and to promote use of low-sulfur fuel to reduce emission of greenhouse gases such as carbon dioxide and sulfide. Recently, the Company re-emphasized that it will not accept the booking and shipping of products such as whale, shark and related products, so as to protect biological environment of the ocean. In 2006, COSCO Shipping Panama Liner successfully completed its inaugural navigation to the expansion Panama Canal, becoming the first new Panamax carrier that passes the newly-built ship gate. When operating terminal business, COSCO Shipping Ports actively promoted the technical reform and innovation with the target of environmental protection, green and low-carbon, energy consumption and emission reduction, cost reduction and benefit-increase, promoted projects such as “electricity for oil” for terminal equipment, LED lighting, all-intelligent and automatic terminal, dream lighting intelligence control system, and new hybrid-power terminal tractor, so as to lower the carbon emission of terminals effectively and showed its social responsibilities in power supply of terminals and ships and other emission reduction projects.

In 2017, the low growth rate and high risk of global economy may not see any substantial improvements, the recovery process will be slow and difficulty, and will be still complicated, uncertain and unstable. According to the report released by IMO in January 2017, global economic growth rate will reach 3.4% in 2017, about 0.3 percentage points higher than 2016. However, global economy will still face the downturn risks such as warm-up of protectionism. Although it is believed that operating situation of container shipping market in 2017 will be better than 2016, the surplus carrying capacity will continue to be the trouble of container shipping industry, and the market situation is still severe. The market will face many challenges as well as unprecedented and new opportunities. Firstly, Chinese economic situation sees the stability in slow development, and favorable trend in stable development. Implementation of a number of national strategies has been accelerated. From “One Belt, One Road” strategy to the construction of “Yangtze River Economic Belt”, from development of a powerful country in terms of ocean industry into “Made in China 2025”, these projects will bring new strategic opportunities for rapid development of the Company in next few years. Moreover, reform and restructuring effects of its indirect controlling shareholder COSCO SHIPPING Group Corporation have appeared. As world’s largest comprehensive shipping enterprise, industry leadership of the company will be enhanced significantly, and its market position and right of speech will be greatly elevated. With the great supports of its indirect controlling shareholder, the integration and collaboration effects of the company will be further demonstrated in 2017.

In face of challenges and opportunities, the Company’s container shipping business will focus on four major strategies, namely “low cost, customer orientation, whole-processed transportation ability and globalization”. Ceaseless efforts should be made to improve the operation and management ability, create differentiated service advantages, create higher value for customers and partners, and further improve the operating performance, so as to develop the Company into world’s first-tier global containers shipping company with international competitiveness. With respect to terminal business, the Company will make full use of the advantage for expansion of container fleet size after restructuring, enhance operation cooperation and strategic collaboration with container shipping business. Besides enhancing the leading position in terminal investment sectors of China, it will further emphasize the internationalization strategies, accelerate the global arrangement of terminal business, actively promote the integration of existing terminals, optimize the terminal assets and management level, and provide higher-quality and wider value-added services for shipping companies and shipping alliances.

In the new year, COSCO SHIP HOLD is willing to join hands with all stakeholders, develop in difficulties, work together to create a win-win ecology for shipping and port, get benefits from reform and restructuring by constantly elevating the operation level and governance ability, do a better job in reducing the losses and creating the benefits, improve the performance continuously, make ceaseless efforts to become one of world’s first-tier container shipping and terminal service providers in accordance with strategic orientation, realize value for customers, create profits for shareholders, and make greater contributions to the society.

Part II Company Profile

2.1 Company profile

2.1.1 General information

COSCO SHIPPING Holdings Co., Ltd (COSCO SHIP HOLD) was registered and incorporated on March 3, 2005, and was listed in the main board of the Stock Exchange of Hong Kong on June 30, 2006 (stock code: 1919), and the Shanghai Stock Exchange on June 26, 2007 (stock code: 601919). The Company has been dedicated to become one of “world’s first-tier container shipping and terminal investment & operation service providers”. Currently, COSCO SHIP HOLD owns 100% equities of COSCO Shipping Lines Co., Ltd and 46.72% equities in COSCO Shipping Ports Co., Ltd.

COSCO SHIP HOLD has been dedicated to providing whole-processed logistical service solutions for customers, paid close attention to enhancement of business collaboration, constantly optimized allocation of internal resources centering on the development of container shipping service supply chain, provided better container shipping and terminal services for customers, and tried to create higher value for customers and partners.

2.1.2 Basic information

Company name: COSCO SHIPPING Holdings Co., Ltd

Registered address: 2nd Floor, No. 12 Building, Yuanhang Business Center at the Intersection of Central Avenue of Tianjin Free-trade Experimental Area (Air-port Economic Area) and East No. 7 Avenue

Company type: stock corporation (joint venture between Taiwan, Hong Kong and Macao company and domestic company, listed company)

Date of incorporation: March 3, 2015

Responsible person: Wan Min

Address of the headquarters: No. 8 Building, No. 658 Dongdaming Road, Shanghai

Zip code: 200080

Tel: 86-21-60298619

Fax: 86-21-60298618

Address: www.chinacosco.com

Part II Company Profile

2.1.3 Abbreviations

English Abbreviation	Full Name
Company, the Company, COSCO SHIP HOLD, (former China COSCO)	COSCO SHIPPING Holdings Co., Ltd (former China COSCO Holdings Co., Ltd)
COSCO, COSCO Group	China Ocean Shipping (Group) Corporation
China COSCO Shipping, China COSCO Shipping Group	China COSCO Shipping Corporation Limited
COSCO Shipping Lines (former COSCON)	COSCO Shipping Container Lines Co., Ltd (former COSCO Container Lines Co., Ltd)
COSCO Shipping Ports (former COSCO Pacific)	COSCO Shipping Ports Co., Ltd (former COSCO Pacific Co., Ltd)
Florens	Florens Container Holdings Co., Ltd
COSCO Shipping Development (former COSCO Shipping Lines)	COSCO Shipping Development Co., Ltd (former COSCO Shipping Container Lines Co., Ltd)
HKEx	Stock Exchange of Hong Kong
SSC	Shanghai Stock Exchange
China COSCO Bulk	China COSCO Bulk Shipping (Group) Co., Ltd
Florens	Florens Container Holdings Limited
China Shipping Lines	China Shipping Container Lines Co., Ltd

Part II Company Profile

2.2 Services provided, size, subsidiaries and significant changes in reporting period of the Company

2.2.1 Services provided and size of the company

COSCO SHIP HOLD is mainly engaged in container shipping and terminal business. It operates international and domestic container shipping and related businesses through COSCO Shipping Lines. The Company ranks the fourth place in the world for container fleet size, with the number of self-owned container ships totals 312 and the carrying capacity reaches 1,648,790 TEUs. Fleets of the Company call at 254 ports in 79 countries and regions, and operate a total of 205 international shipping lines (including international branch lines), 38 costal shipping lines in China and 86 Pearl River Delta and Yangtze River branch lines. The Company has more than 400 domestic and overseas sales and service outlets in worldwide scope, forming a globally operated and integrated container shipping service network, which can provide better “door-to-door” whole-processed shipping solutions for customers. The terminal business block is mainly engaged in loading/unloading and piling of container and bulk terminals, and container leasing service. The Company operates terminal business through COSCO Shipping Ports. Terminals of the Company are scattered in 30 ports in the world, covering five port groups in coastal areas of China as well as Southeast Asia, Europe, Mediterranean, Black Sea, etc. The container terminal berths under operation totaled 158, with the annual throughput of 97.25 million TEUs. According to the 2016 Review and Forecast Report on Global Container Carriers released by Drewry, COSCO Shipping Ports occupied 13% market shares by total throughput, ranking the first place in the world.

2.2.2 Subsidiaries

- (1) COSCO Shipping Lines Co., Ltd is a fully-owned subsidiary of COSCO SHIP HOLD, and is mainly engaged in international and domestic container shipping and related businesses.

Type of company: limited liability company

Investment proportion: 100% (held by COSCO SHIP HOLD)

Total assets: RMB62.925 billion

Number of employees: 18,222

Operating revenue: RMB66.569 billion

Main business: international and domestic container shipping business

- (2) COSCO Shipping Ports Limited and its subsidiaries are mainly engaged in terminal management and operation. COSCO Shipping Ports is a limited liability company registered in Bermuda, and is a company listed at the main board of the Stock Exchange of Hong Kong (HKEx).

Type of company: limited liability company

Investment proportion: 46.72% (held by COSCO SHIP HOLD)

Total assets: RMB46.994 billion

Number of employees: 3,372

Operating revenue: RMB4.239 billion

Main business: container terminal business

Part II Company Profile

2.2.3 Changes in the reporting period

In December 2015, the Company announced its restructuring plans and the movement of its headquarters to Shanghai. COSCO Container Lines Co., Ltd completed the integration of container shipping business with China Shipping Container Lines Co., Ltd on March 1, 2016, and changed its name into “COSCO Shipping Lines Co., Ltd”. After the merger, the number of container ships increased to 312. COSCO Pacific completed the acquisition of China Shipping Ports Development Co., Ltd on March 18, 2016, the sale of 100% equities of Florens on March 24, and changed its name into “COSCO Shipping Ports Co., Ltd”. After the merger, the number of berths increased to 158. China COSCO Bulk Shipping (Group) Co., Ltd separated from the Company in the first half of 2016 (sold to COSCO Shipping Group).

Please refer to COSCO SHIP HOLD 2016 H-share Annual Report for changes of equity structure of the Company in reporting period.

2.3 Supply chain

COSCO SHIP HOLD is a company centered on container shipping and terminal businesses, and its subsidiaries formed a shipping supply chain. The Company owns wide sales and service network in the world through COSCO Shipping Lines, and provides high-quality “door-to-door” services for customers. The Company operates terminal business through COSCO Shipping Ports, and provides cargo loading/unloading, container yard and leasing, and terminal operation-related businesses.

Composition of upstream and downstream industrial chain of shipping logistics industry

7.0 Basic supplying	6.0 Basic manufacturing	5.0 Basic service	4.0 Basic transportation	3.0 Logistics service	2.0 Trade service	1.0 Financial service	End corporate users
<ul style="list-style-type: none"> ◆ Non-metal materials ◆ Metal materials such as iron and steel ◆ Chemical raw materials such as paint ◆ Energy ◆ Crude oil exploitation ◆ Oil refining/processing 	<ul style="list-style-type: none"> ◆ Manufacturing of logistics tools ◆ Shipbuilding ◆ Container manufacturing ◆ Ship-repairing ◆ Container-repairing ◆ Manufacturing of logistics facilities ◆ Terminal and equipment ◆ Inland logistics system ◆ Transshipment center 	<ul style="list-style-type: none"> ◆ Shipping trade ◆ Shipping agency ◆ Container-leasing ◆ Oil supplying ◆ Ship-supplying ◆ Labor ◆ IT network 	<ul style="list-style-type: none"> ◆ Waterway transportation ◆ Container ◆ Dry and bulk cargo ◆ Oil tanker ◆ General cargo/special carrier ◆ Road transportation ◆ Container auto transportation ◆ Railway transportation ◆ Special railway for containers ◆ Air transportation ◆ Pipeline transportation ◆ Terminal ◆ Transshipment center ◆ Container yard/warehouse 	<ul style="list-style-type: none"> ◆ Traditional cargo freighting ◆ Modern logistics ◆ Loading/unloading ◆ Warehouse ◆ Packaging ◆ Distribution ◆ Circulation and processing ◆ Logistics information ◆ Third-party logistics ◆ Fourth-party logistics 	<ul style="list-style-type: none"> ◆ Domestic trade ◆ Sell ◆ Agent ◆ Wholesale ◆ Retail ◆ International trade 	<ul style="list-style-type: none"> ◆ Traditional products ◆ Innovative products 	
Upstream supplying industry			Shipping (logistics) industry		Downstream extension industry		

Part II Company Profile

COSCO Shipping Lines, as a globalized container shipping company, has the supply chain that covers all places in the world and wide business areas. Since 2013, COSCO Shipping Lines started to develop the supply chain sustainability risk assessment system. It formulated all-rounded assessment items and evaluation system as the basis for performance valuation of suppliers. The assessment adopts the combination of self-assessment of suppliers and assessment of customers, and covers aspects such as labor contract, wages and salaries of employees, working time, labor protection, working conditions, safety production, employment system, environmental protection, law-compliance management, commercial ethics, etc. The environmental assessment, human right assessment and social influence assessment of supplies will be taken as one of the main bases for screening and assessment of suppliers. By assessment the sustainability risks of suppliers, the Company tries to influence the suppliers to satisfy the sustainability requirements. In the meantime, it required the suppliers to make improvements on significant negative impacts on the society and the environment (actual and potential) when providing products and services, and join hands with them to create the commercial eco-system for sharing of resources, values, risks and interests.

By the end of 2016, COSCO Shipping Lines is cooperated with more than 6,000 suppliers, including more than 5,000 domestic suppliers. In order to promote the sustainability work of suppliers actively, COSCO Shipping Lines analyzes the suppliers by categories:

Serial No.	Type of suppliers	Main body of suppliers
1	Insurance	Insurance companies, assurance associations, insurance brokers, adjustor and inspection companies, etc.
2	Port & terminal	Terminal companies, loading/unloading companies, water drainage, trailing liner and cargo tally companies, etc.
3	Agency	Pure foreign agencies outside COSCO Shipping's system, etc.
4	Fuel and lubricant	Suppliers of lubricants, fuels, additions and third-party inspection services, etc.
5	Container, pipe, equipment and service providers	Container yards, ship-reparation companies, third-party inspection companies, container leasing companies, container building and selling companies, sealing suppliers, chassis vehicle suppliers, container reconstruction suppliers, auto rank and refrigeration part suppliers, etc.
6	Barge and extension service	Operators of public branch liens, barge companies, tractor companies, railway companies (railway bureaus), tractor transportation service platform, warehousing companies, customs clearance company, yards, etc.
7	Ship leasing	Ship-owners, ship-leasing brokers, etc.
8	IT equipment, software and service	Suppliers of PC, server and accessories, software, software & hardware operation and maintenance services, IT system solution, data network, IT outsourcing services, etc.
9	Comprehensive business consultation	Assets appraisal institutions, management system consultation company, construction project price consultation company, audit and certification institutions, corporate management advisors, translation company, etc.
10	Audit	Auditing firms, etc.
11	Information service	Providers of macro-economic trade information, shipping and logistical information, marketing information, strategy management information, etc.
12	Finance	Accounting firms, banks, third-party payment platforms, etc.
13	Comprehensive law	Law consultation institutions, lawyers, etc.
14	Materials and spare parts (including communication & navigation equipment and services)	Suppliers of ship spare parts, ship-used paints, general materials for ships, fresh water, living garbage disposal services, communication & navigation devices, gas conduction equipment and services, ocean maps, etc.
15	Slop disposal and services	Slop disposal service providers, slop disposal third-party supervisors, etc.
16	Ship assets and services	Shipyards, ship-repairing plants, brokerages, escorting service providers, ship classification societies, providers of shipbuilding supervision services, etc.
17	General materials and services	Suppliers of stationaries, advertisement & propaganda services, printing services, gifts, furniture, vehicles, travel services, property-related services, engineering & decoration services, human resources services, etc.

Part II Company Profile

In the reporting period, COSCO Shipping Ports mainly traded with 40 suppliers in Hong Kong and 80 suppliers in mainland China. The company carried out supplier management work in accordance with related rules and regulations of the group, and the principles of “classification and concentration”. The headquarters and subsidiaries are responsible for management of their respective suppliers, quantitative review on suppliers was made in regular and continuous manner, and took environmental protection and social responsibility of suppliers as the appraisal bases. While propelling suppliers to improve their service level constantly, it also influenced the suppliers to satisfy sustainability requirements. Awarding and punishment mechanism was established to award excellent supplies and punish poor suppliers, and optimize the structure of supplies continuously. In 2016, the company implemented the supplier management policies excellently, conducted surveys and evaluation on existing supplies, conducted annual inspection on unused suppliers in the database and updated related information.

2.4 Risk management and internal control

In 2016, the Company carried out risk management work focusing on merger and restructuring of the enterprise in accordance with requirements of State Council SASAC and China COSCO Shipping Group. It insisted on comprehensive, coordinative and sustainable scientific outlook of development in accordance with requirements of the Internal Control and Risk Management Approaches of the Group and with a focus on the overall objectives of “preventing and controlling key risks, improving risk control system, and elevating monitoring ability”, integrated management system of the company, further enhanced the management functions, and ensure smooth progress of integration of COSCO Shipping Lines and COSCO Shipping Ports.

With the change of restructuring, COSCO Shipping Lines took top-level design as its top priority, and formulated the risk system framework design and internal control & risk management manual as well as the implementation plans for annual risk and internal control system building in accordance with the significant changes of organizational framework, institutional establishment, business process and personnel allocation. On the basis of existing systems of COSCO Group and China Shipping Group, it revised, updated and supplemented the business system and management procedures, specified the management objectives, organizational structure, work division and business processes by clearing the systems and improving the management systems, and specify the effectiveness of risk prevention and control system. Based on the new organizational structure, it specially set up the post of system specialist, re-named system managers of related departments, so as to ensure normal operation of risk management work. It also conducted guidance and supervision on risk management work of its subsidiaries based on implementation situations and overall arrangement of the headquarters. By taking the opportunity of implementation of 2015 version of international quality management standards, it implanted the concept of risk management, and systematically identified the business and operation risks while identifying the business processes. It also established risk and internal control system while creating the system documents; It also improved the post risk obligations of employees while improving their post responsibilities, so as to promote fulfillment of various management requirements, and created complete risk evaluation mechanism. It cooperated with the group and external auditors to conduct internal control assessment and internal control audit on the headquarters and seven subsidiaries, invited consulting firms to conduct internal-control self-assessment on three subsidiaries. Through assessment and audit work, it timely found the defects and issues, and carefully implemented the rectification measures. It also promoted the elevation of risk awareness and behaving ability of cadres and employees, and helped backbones for internal control and risk management work to be familiar with professional knowledge and elevate their management ability through special training and internal auditor training. By strengthening its management basis, it further enhanced the risk prevention and control ability.

Part II Company Profile

The Enterprise Management Department of COSCO Shipping Ports was responsible for daily risk management and internal control work. In the first half of 2016, it started to collect internal and external information, organized related departments and controlling terminals to carry out self-assessment, invited professional consultation institutions to carry out internal control assessment and risk evaluation work, segment risks of the company by making use of external experts, further improved the risk management functions, and implemented the rectification of internal control defects. In order to promote the building of risk control system of its controlling terminals, the company specially invited professional consultation institutions to conduct internal control assessment on three subsidiaries namely Yangzhou Yuanyang Terminal, Zhangjiagang Yongjia Terminal and Jinzhou Terminal. The company and some affiliated terminals have established the internal reporting mechanism for risk management and internal control work, the reporting procedures, contents and quality are definite, the formation and implementation of risk management working plans, and progresses of daily work and important risk events can be reported layer-by-layer in accordance with the requirements. In order to enhance the internal control and risk management awareness of all employees, the company organized special symposiums on risk control for management team as well as full-time and part-time risk control personnel, so as to establish risk control awareness, cultivate risk management culture, and gradually created the risk control talent team with professional level through exchange with professional consultation institutions.

2.5 Participation in international activities

The Company has been dedicated to promoting development of global economy, promoting implementation of UN Global Compact and sustainability, promoting performance of social responsibilities, preventing commercial bribery and industrial monopolization, creating equal, fair and transparent market competition environment, attending national and international activities actively, showing ideas of the company and awareness of the management team through many effective ways and venues, and making related commitments to the public. It attended the research and formulation of related international conventions and national laws & regulations, actively attended various sustainability-related activities home and abroad, and sufficiently communicated with related enterprises and institutions on implementation of UN Global Compact and sustainability at various important conferences and activities.

The Company attended the World Shipping Summit 2016 actively, joined hands with all parties in shipping industrial chain, such as shipping, port, logistical, shipbuilding, financial and trade companies to discuss on opportunities and challenges of global shipping industry under new market situation centering on the theme of “co-establishment of new international shipping ecology”. It re-recognized the external environment for existence of the industry, re-built the competition relations between shipping and related industries, re-planned the development paths for shipping and related industries, and sought for new impetus for healthy and continuous development of the industry.

The Company participated in activities of CCWG affiliated to BSR, and reported on environmental performance of all ships on yearly basis as a member of CCWG. In the meantime, it attended the environmental protection practice such as CSI certification, completed certification and audit of 12 ships and DNV online certificate issuance, becoming the third company in the world that passes CSI certification. In the meantime, it joined the ESI Project initiated by WPCI affiliated to IAPH in 2013. By the end of 2016, a total of 49 ships in the fleet gained ESI scoring certificates, and attended the six-month recycling certifications to enjoy the preferential navigation fees at affiliated ports of WPCI.

Part II Company Profile

2.6 Participation in industrial activities

As an important entity of global liner shipping economy, the Company took part in activities organized by industrial organizations actively, responded to appeals of World Shipping Summit 2016, upheld the development concept of “win-win cooperation, healthy and sustainable development” and the spirits of “freedom, equality, honesty and tolerance”, followed the basic principle of “farsightedness, equality & mutual-benefits, advantage supplementation and mutual development”, joined hands with others to create a “cooperative, sharing, innovative and self-disciplinary” new ecology for international shipping industry and power world economic growth.

COSCO Shipping Lines affiliated to the Company is a member of following international organizations: IADA, TSA, WTSA, CTSA, CWTSA, IRA, AADA, TFA, WSC, International Association of Ports and Harbours, World Shipping Council, etc. It is also a member of more than 60 domestic organizations including China Shipping Society (standing councilor), Shanghai Association of Traffic and Transportation (vice president unit), Shanghai Navigation Society (vice councilor and councilor), Container Shipping Committee of China Navigation Society (director member), China Ship-owners Association (standing councilor, councilor), Shanghai Ship-owners Association (vice president unit), Shanghai Maritime Society (vice president), Shanghai Safety Production Association (standing councilor), Shanghai Shipping Exchange (councilor), Shanghai International Shipping Research Center (vice president), Promotion Committee of Shanghai International Shipping Center (vice president), Shanghai Information Association, China Maritime Law Association, China Ship-owners Mutual-guarantee Association, the Logistics Committee of Chinese Association of Traffic and Transportation, Shanghai Energy-conservation Association and Shanghai Labor Guarantee Council, etc.

COSCO Shipping Ports is also a member of more than 20 associations and organizations, such as Business Environment Council (special member), China Free Trade Zone and Export Processing Zone Association (executive councilor), China Port Association (councilor), Container Branch of China Port Association (vice president), China Port Association (councilor), Hong Kong Investors Association (member), Shanghai Association of Enterprises with Foreign Investment (councilor unit), etc.

Part II Company Profile

2.7 Management of stakeholders

The Company identified and selected stakeholders based on their attention degree on sustainability as well as their influence on the Company, applied risk assessment methods to identify key indicators concerned by stakeholders, so as to determine the identification, communication methods and information utilization ways of stakeholders.

2.7.1 Identification of stakeholders

The Company analyzed the stakeholders influenced by its operation through two-dimensional matrix method by their influential degree and dependence of the company in accordance with development of operating strategies of the Company, determined the sequence of stakeholders and specify their expectations and requirements on the Company.

Stakeholders	Way of Communication	Expectation on COSCO Group	Main Indicators
Government (Chinese Government and local governments of places where it operates)	Release of laws, regulations, policies and indicators, meetings and activities, special reporting meetings, reports and visits	Legal operation, tax payment in accordance with laws, guarantee of safety, energy conservation and emission reduction, enlargement of employment opportunities and fulfillment of sustainability	Total tax revenue; energy conservation indicator; emission dictator; employment opportunities created
Investors (SASAC is representative of investors)	Issuance of documents; participation in conferences, periodical reports, daily communication with authorities, reports and visits	Continuously improve its profitability and key competitiveness so as to keep and increase value of state-owned assets	Profit, capital return ratio, rate for value keeping and increase of state-owned assets, total debts, asset-liability ratio, owners' equity
Social public shareholders (Shareholders buying stocks of the Company)	Annual reports, shareholders' conference, written notice for shareholders, daily communication via telephone	Continuously improve company's value and market value, decrease enterprise risk, disclosure of important information, equal participation and protection of rights and interests of shareholders	Market value; listed companies' reward ratio; minority shareholders' rights and interests;
Strategic partners (juridical persons signing agreements with the Company on strategic cooperation, joint operation and joint venture)	Contract implementation; regular meetings; meetings of top management; file and mail transfer, daily communications	Constantly improve profitability in strategic cooperation sector and ensure common interest of strategic partners, information and resource-sharing	Sales revenues, return rate of capital, market occupancy
Clients (direct clients purchasing any product or services of the Company)	Online booking and inquiry, marketing conference, customer satisfaction survey, daily communications with sales representatives, disposal of complaints of customers	Improve transportation service network, provide convenient, high-quality and cheap container shipping service, create value for customers	Customer satisfaction, comprehensive on-time ratio
Subsidiaries (The Company's wholly owned, joint venture, joint operation, and cooperative companies)	Board meeting, work meeting, communication with top executives, daily business mails and phone calls	Provide accurate decision-making and scientific management, continuously improve management level and efficiency, ensure capital guarantee and turnover	Profit, sales revenue, return rate on capital, debt ratio, carrying capacity and turnover capacity
All members in organizational structure of the company	Workers' congress, president's mailbox, conference, internal communication system and employee satisfaction survey	Ensure basic rights and interests, realize democratic management, improve salaries and welfares, promote ability elevation and career development, elevate sense of belonging and recognition	Employees' satisfaction, employee turnover ratio, investment to employee training
Suppliers (suppliers and sub-contractors including ship agency, freight forwarding, classification society, service provider, consulting companies, certification and auditing units, etc.)	Contract and agreement negotiation, regular visits, bidding meeting, opinions collection	Provide and increase cooperation opportunities continuously, establish fair procurement mechanism and gain reasonable earnings	Contract and agreement negotiation, regular visits, bidding meeting, opinions collection

Part II Company Profile

Stakeholders	Way of Communication	Expectation on COSCO Group	Main Indicators
Financial and insurance units of bond owners	Contract negotiation, regular visits, daily exchanges of business personnel	Operate stably to ensure timely payment and prevent risks	
Trade unions (Trade unions in China and in places where it operates)	Collective negotiation, periodical communication of representatives of trade union and contact person, conference, workers assembly	Respect labor rights, comply with requirements of trade unions, maintain legal rights and interests of employees	Percentage of employees joining the trade union, signing ratio of collective contracts, complaining ratio of employees, employee participation ratio
Community (in China and business locations)	Public appeal, joint development projects, meetings and community activities	Civilized production, boost community prosperity and harmony, investment for community building, contribution for ecological environment of the community	Investment in community building, number of pollution-related complaints
Non-governmental institutions and organization (international environmental protection organizations, international labor organizations, international maritime organizations, industry associations, local communities, etc.)	Joining associations, participation in project investment, participation in activities beneficial to industry and society, industrial forums	Practices and resources to meet standards and requirements advocated by organizations of sustainable economic development, healthy industry development, local prosperity and non-profit organizations	Number of associations and societies participated, annual membership fees, social contribution ratio, investment in social welfares

By forming social responsibility alliance and carrying out social responsibility projects with stakeholders, the Company managed to engage its stakeholders into the sustainability work to the maximum extents, and promote the implementation of social responsibility-related requirements together.

2.7.2 Paying attention to demands of stakeholders

The Company has paid close attentions to demands of stakeholders, and tried to understand hopes and requirements of stakeholders on it through symposiums, visits, telephones and online forms, analyzed and considered their demands in its operation and decision-making processes, and tried to ensure the mutual benefits with stakeholders in business operation.

2.7.3 Communication mechanism with stakeholders

The Company established close communication with shareholders, the government, customers, and the public through various participation mechanism, timely reported the actions and performance of the Company in performing UN Global Compact and social responsibilities to the public.

The Company sets up the Securities Affairs Department, which is responsible for communication and exchange with investors and stakeholders in capital market, participation in investors conferences organized by domestic and overseas investment banking and security dealers, receipt domestic and overseas investors, fund managers and analysts, and answered questions and inquiries of small and medium-sized investors. So far, more than 1000 international and domestic funds, insurance companies, securities companies and privately-raised institutions have kept close contacts with the Company. In order to better communicate with investors in capital market, the Securities Affairs Department registered emails of all investors and stakeholders in capital market that have contacted with the Company, formed email group, and sent them various notices, circulars, information of shipping market, important news and summaries of analysts' reports at the first time.

Part III General Information of the Report

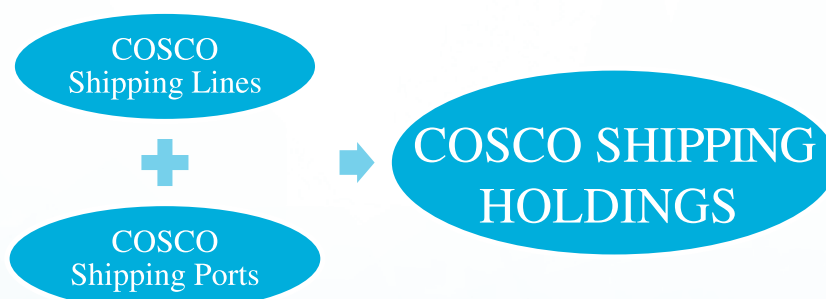
3.1 Report background

Reporting period	Jan. 1, 2016 to Dec. 31, 2016
Report release time	March 2017
Release time of the previous report	March 2016
Reporting period	Once a year
Contact person	Yan Qijia Email: yanqj@coscon.com Tel: 021-35124888-2380
Reporting bases	GRI Sustainability Reporting Guidelines (GRI G4) Guidelines on Environmental, Social and Governance Report of HKEx (ESG) Guidelines on Environmental Information Disclosure of Listed Companies of SSE
GRI and ESG indexes	Please refer to Appendix 1 and Appendix 2
External assurance	The Company will invite a third-party institution to make external assurance in next report or at appropriate time
Report release channels	Website of COSCO SHIPPING HOLDINGS: http://www.chinacosco.com Designated website of CSRC: http://www.sse.com.cn
Units covered by the report	COSCO Shipping Lines Co., Ltd COSCO Shipping Ports Limited

3.2 Substantial topics and border

3.2.1 Two economic entities covered in the report

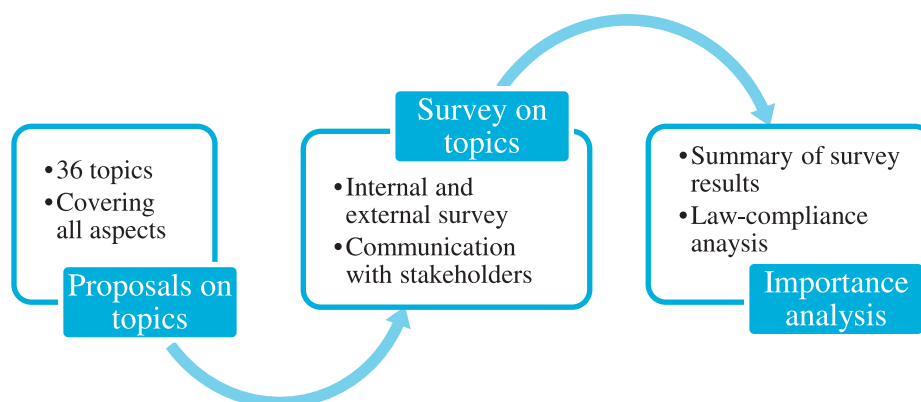
COSCO SHIP HOLD has two main affiliated economic entities, namely COSCO Shipping Lines and COSCO Shipping Ports. These two entities are all covered in the report, and are consistent with the consolidated financial reports. However, border of some contents in the report may be different (please see below explanations).



Part III General Information of the Report

3.2.2 Determination of substantial topics and reporting borders

When preparing the report, the Company sets up a report compilation team directly headed by supreme management team of the Company. Members of the compilation team include external experts and internal compilation team. Topics to be disclosed were determined by following three steps:



(1) Proposals of the compilation team

A total of 36 substantial topic related to the report were listed in accordance with GRI G4 core disclosure plans and the requirements of HKEx and SSE, and in combination with external environment of container shipping and port businesses. These topics cover economic, environmental and social issues concerned by all circles of the society.

Serial No.	Substantial topics	Brief description to the topics
	Economy	
1	Economic performance	Direct economic value generated and distributed
2	Market performance	Salaries
3	Indirect economic influence	Infrastructure investment and influential degree
4	Procurement behaviours	Proportion of local procurement
	Environment	
5	Materials	Use of raw materials and packaging
6	Energy	Total consumption volume and unit consumption volume of fuel/electricity, and energy conservation situations
7	Water	Total water consumption, unit water consumption and water conservation situations
8	Bio-diversity	Influences on bio-diversity
9	Waste gas emission	Greenhouse gas emission volume and density
10	Sewage and garbage	Sewage discharge and waste
11	Impact of service on environment	Environmental influences of business activities and how to reduce such influences
12	Environmental law-compliance	Penalties for violating environmental laws and regulations
13	Expense on environmental protection	Expense on environmental protection

Part III General Information of the Report

Serial No.	Substantial topics	Brief description to the topics
	Labor practice and decent work	
14	Employment	Number of new employees, gender, resignation and welfares
15	Labour relations	Ways to inform the employees and the minimum notice time upon occurrence of significant changes
16	Occupational health and safety	Labor protection, occupational disease, work-related injuries and death
17	Training & education	Training plans and training time of employees
18	Diversification and equal opportunities	Employee composition by gender, age and nationality, and management team
19	Equal salaries for male and female employees	Proportion of salaries for male and female employees
20	Labor practice appraisal of suppliers	Social responsibility appraisal of suppliers
21	Complaining mechanism for labor issues	Complaining mechanism for labor issues and complaining situations
	Human rights	
22	Responsible investment	Articles on human right protection in important investment agreements
23	Non-discrimination	Discriminative events and correction
24	Freedom of association and collective negotiation	Collective agreements
25	Child labor	Whether child labors are used, and measures to prevent against use of child labors
26	Forced labor	Whether forced labors are used, and measures to prevent against use of forced labors
27	Complaining mechanism for human right issues	Complaining mechanism for human right issues and number of complaints
	Society	
28	Social participation	Social participation
29	Anti-corruption	Anti-corruption policies, actions and results
30	Anti-competitive practice	Anti-competitive practice and the outcome
31	Commercial law-compliance	Violation of laws and regulations in commercial practice and fines received
32	Evaluation on social impacts of suppliers	Significant negative influence (actual and potential) of supply chain on the society and measures taken
	Products and service liabilities	
33	Customer satisfaction and compliant disposal mechanism	Customer satisfaction survey results and mechanism for disposal of customer complaints
34	Market promotion	Number of events violating laws and regulations regarding market promotion (including advertisement, sales promotion and sponsorship) and voluntariness rules
35	Customer privacy protection	Consumer data guarantee and privacy policies as well as related implementation and supervision measures
36	Intellectual property right protection	Protection and guarantee of IPR-related rules

Part III General Information of the Report

(2) Internal & external survey

In order to ensure that the sustainability information disclosed in the report can better meet demands of all circles of the society, the Company conducted internal and external surveys at the headquarters and two subsidiaries based on aforesaid 36 topics. A total of 65 questionnaires were distributed, of which, 40 were for senior and middle management and key posts of the Company, while 25 were external stakeholders, such as investors, customers, suppliers, governmental institutions and certification companies. A total of 60 valid questionnaires were taken back, accounting for 92% of the total. The Company also surveyed on substantial topics concerned by stakeholders through stakeholder management communication mechanism, such as industrial conferences, visits of customers, additional requirements of customers in the contracts, suppliers symposium, and employee survey.

	Internal survey	External survey
COSCO SHIP HOLD Headquarters	10	5
COSCO Shipping Lines	15	10
COSCO Shipping Ports	15	10
Total	40	25

(3) Review and sequencing

Based on 60 questionnaires collected, and in combination with the outcomes of stakeholder management & communication mechanisms, the expert team matched the substantial topics with important aspects specified in GRI G4 and ESG of HKEx, to ensure that there were no negligence or emissions. A total of 19 substantial topics were determined eventually as core contents to be disclosed in the report from three dimensions, namely importance for stakeholders, importance for sustainability strategies of the Company, as well as ESG compulsive disclosure requirements and GRI 4.0 core plans



Part III General Information of the Report

Topics and performance indicators determined after screening from aforesaid three dimensions are as follows:

Topics	Law-compliance analysis		Disclosure border	
	G4 and indicators	ESG	Internal	External
Economy Economic performance	Economic performance (EC1-Direct economic values generated and distributed EC2-Impacts and opportunities brought by climate change)			●
Community building	Indirect economic impacts (EC8-Important indirect economic impacts)	Community investment (B8.1, B8.2)	●	
Environment				
Energy	Energy (EN3-Energy consumption of the institution, EN5-Energy intensity, EN6-Energy consumption reduced)	Resource utilization (A2.1, A2.3)	●	
Water	Water (EN8-Total water consumption by origin, EN9-Water source affected, EN10-Total volume of cycling and reutilization water and proportion)	Resource utilization (A2.2, A2.3, A2.4)	●	
Waste gas emission	Waste gas emission (EN15-direct greenhouse gas emission, EN16-greenhouse gas emission, EN18-greenhouse gas emission intensity, EN19-greenhouse gas emission reduced, EN21-SO ₂ , SOX emission)	Emissions (A1.1, A1.2, A1.5)	●	
Sewage and garbage	Sewage and garbage (EN22-Sewage discharge, EN23-Total garbage disposed by categories, EN24-Number and volume of serious leakage)	Emissions (A1.1, A1.3, A1.4, A1.5 and A1.6)	●	
Environmental impacts and law-compliance	Products and services (EN27-Reduction of impacts of products and services on the environment, EN29-Penalties due to violation of environmental laws and regulations)	Environment and natural resources (A3.1)	●	

Part III General Information of the Report

Topics	G4 and indicators	Law-compliance analysis ESG	Disclosure border	
			Internal	External
Society				
Employment	Employment (G410-Number of employees in different regions and of different types, LA1-Number and proportion of new employees and employees resigned)	Employment (B1.1, B1.2)	●	
Occupational health and safety	Occupational health and safety (LA6-Number and proportion of employees with related injuries and number of work-related deaths)	Health and safety (B2.1, B2.2, B2.3)	●	
Training and education	Training and education (LA9-Annual training times of employees by type and gender)	Development and training (B3.1, B3.2)	●	
Child labor	Child labor (HR5-Measures to prohibit use of child labor and outcomes)	Prevention against child labor or forced labor (B4.1, B4.2)	●	●
Forced labor	Forced labor (HR6-Measures to prohibit use of forced labor and outcomes)		●	●
Local community	Local community (Proportion of outlets implementing local community participation, influence evaluation and development plans)		●	
Anti-corruption	Anti-corruption (SO4-Anti-corruption training, SO5-Anti-corruption events and acts)	Anti-bribery (B7.1, B7.2)	●	
Law-compliance	Law-compliance (SO8-Amount of significant fines received due to violation of laws and regulations, and number of non-economic penalties received)		●	
Supply chain management	Supply chain management (G4-12 Description of supply chain)	Supply chain management (B5.1, B5.2)	●	
Customer satisfaction and disposal of complaints	Products and service logo (PR5-Customer satisfaction survey results)	Product liability (B6.2)	●	
Customer privacy	Customer privacy (PR8-Total number of complaints on infringement of customer privacy and lost of customer materials)	Product liability (B6.5)	●	
Intellectual property right		Product liability (B6.3)	●	

Part III General Information of the Report

3.2.3 Revision to the report

The previous sustainability report of the Company was compiled in accordance with requirements of GRI G3.1. According to GRI requirements, the sustainability report disclosed in 2017 shall be compiled in accordance with GRI G4. Moreover, the Guidelines on Environmental, Social and Governance Report released by HKEx took effects on Jan. 1, 2017. The Guidelines require all companies listed in main board of Hong Kong to release the report in accordance with the guidelines. Therefore, the Company made great changes on the original reporting format. The report covers two subsidiaries, namely COSCO Shipping Lines and COSCO Shipping Ports, and some substantial topics cover suppliers, so as to better satisfy the international guidelines and regulatory requirements on local listed companies.

As great changes have taken place to organizational structure and size of the Company after restructuring, the report only discloses the sustainability indicators in 2016, and doesn't compare with data in previous years.

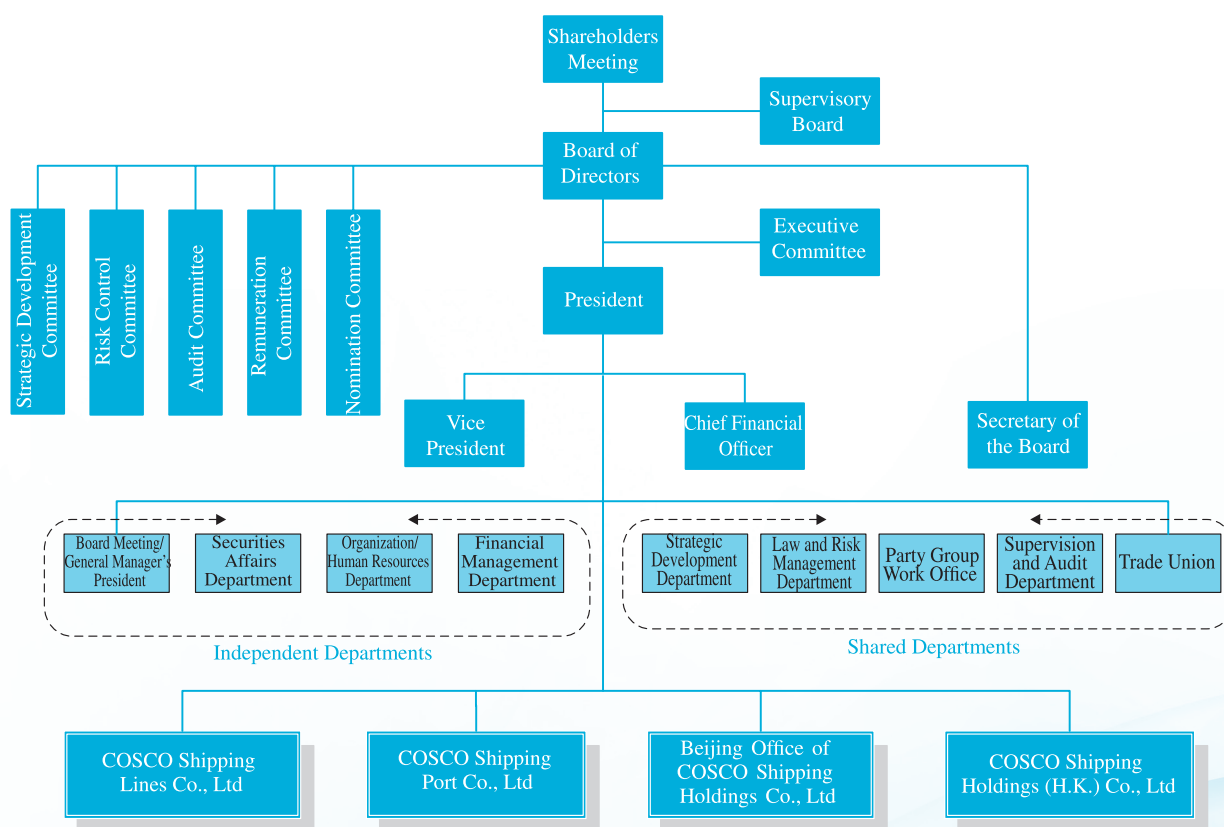
The report is provided in both Chinese and English versions. The English version is the translation of Chinese version. If there are any differences between the two versions, the Chinese version shall prevail.

Part IV Corporate Governance

4.1 Governance structure

All senior managers of the Company have tried to manage the Company in accordance with provisions of the Appendix 14 General Rules on Corporate Governance of the Stock Listing Rules of HKEx and the Shanghai Stock Exchange's Evaluation Methods on Information Disclosure Work of Listed Companies (revised in 2015). They also tried to improve governance measures of the company continuously, ensure the establishment and implementation of proper business supervision and management procedures, and conduct regular inspection on these procedures, so as to perform the Company's obligations to the shareholders.

To ensure fulfillment of the strategic targets, the Company establishes a cautious governance structure in accordance with the modern enterprise system. The shareholders' meeting is the supreme decision-making institution of the Company. The Board of Directors is the decision-making institution of the company and features the functions for management of strategic decisions. The Supervisory Board is the supervision institution of the Company and undertakes dual supervision functions, namely supervision of the board of directors, and supervision of the management team. The Board of Directors has six special committees under its affiliation, which play active roles in prevention and control of operation risks and law-compliance risks in decision-making process of the board. The governance structure of the Company is as follows:



Part IV Corporate Governance

4.2 Shareholders meeting, board of directors and special committees

4.2.1 Shareholders meeting

The shareholders meeting is the supreme decision-making institution of the Company and operates in strict compliance with the procedures specified in the Corporate Law, the Articles of Association of COSCO SHIP HOLD and the Rules of Procedures for the Shareholders Meeting of COSCO SHIP HOLD. The shareholders meeting makes decisions in a scientific and democratic manner, and protects legal rights and interests of the Company and the shareholders. Selection and appointment of directors and supervisors of the Company comply with Articles of Association of COSCO SHIP HOLD, and selection of senior managers of the Company is in strict compliance with provisions of the Articles of Association of COSCO SHIP HOLD.

4.2.2 Board of Directors

The Board of Directors is the decision-making institution of the Company. The Company selects and appoints directors in accordance with provisions of the Articles of Association, and the number and personnel composition of the board comply with requirements of related laws, rules and regulations. The Board of Directors is comprised of 13 members, including four executive directors, four non-executive directors and five independent non-executive directors. All directors have professional knowledge needed for performance of their obligations as well as rich operation and management experiences, and perform their obligations in a loyal, honest and diligent manner. After reform and restructuring of the Company in 2016, members of the Board of Directors and special committees were re-elected. Currently, the Board of Directors has 13 members, including Wan Min, Huang Xiaowen, Xu Zunwu, etc., and their main duties are as follows:

Name	Posts in the Company	Part-time posts in other companies
Wan Min	Chairman and non-executive director	Director, president and deputy party group secretary of COSCO Group
Huang Xiaowen	Vice chairman and executive director	Vice president and party group member of COSCO Group
Xu Zunwu	Executive director, president, deputy party committee secretary (in charge of party committee work)	

The Board of Directors operates in accordance with the Rules of Procedures of the Board of Directors, the Rules of Procedures of the Shareholders Meeting, Articles of Association and the Working Rules of Independent Directors.

Part IV Corporate Governance

4.2.3 Special committees

The Board of Directors has six special committees under its affiliation. The special committees, as the important institutions to support decision-making of the Board of Directors, play their role to prevent and control operation risks and law-compliance risks. The Risk Management Committee effectively promotes the establishment of the risk management system of the company, comments on the risk assessment work of major investment projects, and helps the company to avoid and resolve potential operating risks. The Audit Committee pays attention to internal audit and control work of the company, conducts on-site investigation on management of continuing connected transactions, listens to report of management team of implementation of continuing connected transactions and the management proposal, effectively supervises and guides legal and compliant operation, and constantly elevates the management level of the company.

Special committees	Main functions
Strategy and Development Committee	Research development strategies, business development directors and sustainability strategies of the Company, and review the annual strategic planning report and key capital operation projects.
Risk Control Committee	Review risk control decisions and key risk control solutions, review important decisions and risk assessment report of important projects.
Audit Committee	Advise on appointment and dismissal of external auditors, and approve their remuneration plans and employment articles, deal with their resignation or dismissal and check their service processes and outcomes; Review the financial information and its disclosure, check the formulation and implementation of financial supervision, internal control and risk management systems, check the Letter of Explanation on Audit Situations and the responding situations.
Remuneration Committee	Research and formulate salaries and remuneration policies of directors and senior managers, plan and review their duty-performance evaluation, formulate the remuneration policies of directors, dispatched directors and supervisors of the Company and review implementation of aforesaid policies.
Nomination Committee	Advise on personnel composition of the board, selection standards and procedures of directors, candidates of directors as well as personnel composition of other special committees under the board.
Executive Committee	Decide and supervise important strategies, important investments and important matters related to daily operation activities of the Company, and decide adjustment of internal institutions and optimization plans of management processes of the Company.

The special committees perform their duties within their professional scope in accordance with specific rules, such as the Rules of Procedures of the Audit Committee, the Rules of Procedures of the Risk Control Committee, the Working Rules of the Remuneration Committee, the Rules of Procedures of the Audit Committee and the Working Rules of the Nomination Committee.

Part IV Corporate Governance

4.3 Supervisory Board

The Supervisory Board is the supervisory body of the Company. Number of supervisors and personnel composition of the Supervisory Board complies with provisions and requirements of the laws, regulations and Articles of Association of the Company. The Supervisory Board is comprised of seven supervisors, including five internal supervisors (including two staff representative supervisor elected democratically) and two external independent supervisors. The Supervisory Board features dual functions, namely supervision on strategic decisions of the board and special committees as well as operation decisions of the management team.

4.4 Top management team

Top management team of the Company is comprised of seven members including Xu Zunwu and Ma Jianhua. The top management team implements decisions of the board of directors and ensures fulfilment of strategic targets of the Company.

The Company appoints Mr. Ma Jianhua as representative of company managers, and to be responsible for implementation of social responsibilities, internal control and risk management system, coordination, supervision and audit on creation, screening, update and improvement of economical, environmental and social topics, identification of risks and opportunities in economical, environmental and social responsibility management, and review and approval of the sustainability report.

The Supervisory Board checks financial situations, implementation of solutions of the shareholders' meeting and duty-performance situations of the management team by observing the board meetings and shareholders meetings of the Company. It conducts on-site investigation, listens the report of external auditors and internal auditors on audit situations of the company, so as to protect rights and interests of the shareholders and the Company. The Supervisory Board supervises the internal control established and implemented by the board. The Audit Committee of the Board of Directors assists the board to review the establishment and improvement, effective implementation and self-assessment of comprehensive risk management and internal control system, effective implementation of aforesaid systems.

4.5 Value concept of the Company

The Company takes "creating of value for customers and the society" as its obligations. It performs its social responsibilities as a corporate citizen with people as the basis, market as the orientation, technology as the measure and benefits as the center, and insists on double-wheel drive of production operation and capital operation. It expands international shipping business, actively expands terminal industry, and cultivates and enlarges the container leasing business. It promotes the transformation from a comprehensive shipping enterprise into a leader in shipping and logistical cluster, and from a transnational operation company into a transnational company and a global company, so as to fulfill the better, faster and sustainable development targets.

4.6 Latest corporate governance information index

Please refer to website of the Company (<http://www.chinacosco.com>) for latest information on corporate governance.

Part V Creating Profits for Shareholders

5.1 Management approaches

In 2016, there were no substantial improvements in slow growth of global container shipping demands, surplus carrying capacity and imbalance of suppliers and demands of international shipping market. BDI, SCFI and CCFI all set a new historical low. In the reporting period, the growth of revenue of container shipping business was lower than the growth of container shipping volume, while the growth rate of revenue was lower than that of cost due to market depression. It is predicted that global economy and demands of shipping market will continue the new normal of low-speed growth. The surplus carrying capacity will continue to trouble container shipping industry.

In face of fierce market situation, the Company implemented low-cost strategies in container shipping business, explored the cost reduction potentials, elevated its resource allocation ability, enhanced supplier manager, and accelerated the fulfillment of greater collaboration effects. With customers as the center, it improved the service processes continuously, solved “difficulties” of customers timely, and elevated the service ability and customer experience continuously. It further elevated the ability of whole-processed transportation solutions, explored the extended service demands of customers, exerted great efforts to develop extension services and tried to create value for customers. It accelerated the construction of global shipping network that connects east to west, south to north and all regions, developed low-cost networks and implemented globalization strategies. It elevated the operation efficiency constantly by optimizing the alliance cooperation mechanism and the shipping line network. With respect to terminal business, COSCO Shipping Ports improved its global container hub port networks by strengthening the development of areas along the “One Belt, One Road”, and elevated the service ability for shipping companies and shipping alliance. It also sought for investment opportunities of controlling terminals, increase the number of controlling terminals, and enhanced its controlling ability, so as to effectively elevate the operation ability and efficiency of terminal.

5.2 Performance indicators

5.2.1 Direct economic value created and distributed

In 2016, operating revenue of COSCO SHIP HOLD totaled RMB69,833.164 million, up RMB14,684.867 million or 26.63% year-on-year. Please refer to COSCO SHIP HOLD 2016 H-share Annual Report for detailed economic figures.

1) Container shipping business

In 2016, COSCO Shipping Lines overcame double challenges, namely complicity of reform and restructuring and severe market situation, completed the integration of domestic and overseas networks in six months through deep and fast reforms, realized unified operation of global IT system ahead of schedule, and completed the integration and restructuring of container shipping business in a high-efficient and stable manner. In the meantime, it determined four core strategies, namely “scalization and globalization, customer-orientation, low-cost strategies and elevation of ability to provide whole-processed logistics solution for customers”, and tried to enhance the benefit management ability and cost control ability of the company. Since March 1, the company leased and operated the container ships owned or operated by China Shipping Development, and its carrying capacity of fleet increased rapidly. As of Dec. 31, 2016, the container fleet of the Company has 312 self-owned ships, with the carrying capacity of 1,648,790 TEUs, up 85.9% year-on-year.

Part V Creating Profits for Shareholders

In the reporting period, COSCO Shipping Lines prepared for establishment of “Ocean Alliance” carefully and elevated its service advantages in traditional east-to-west trunk lines constantly. It continuously optimized the shipping lines and carrying capacity structure following the changes of macro-economic and trade situations, increased the inputs into South America, Caribbean, Africa and other new emerging markets, and realized the growth of cargo volume in new emerging markets. It made constant efforts to optimize regional networks such as Southeast Asia, Europe & Mediterranean – West Africa and Central America, so as to further elevate the globalization degree of its shipping line network. It enhanced the market strength continuously, fulfilled the target of no loss of cargo volume in the first year after restructuring, and rapidly created the leading advantages in terms of scale and cost. By optimizing the shipping line network, supplier procurement and container management, the collaboration effects gradually appeared. Since Sept. 1, 2016, the company launched nine standard services in worldwide scope, including cabin-booking, on-tie ratio and transshipment service, and established China Region Customer Service Center to response to demands of customers timely and further elevate the customer experience. It explored the extended service demands of customers in an in-depth manner, further integrated the extended service resources such as tractor, barge and railway, and realized network optimization, service elevation and revenue growth. It researched and formulated the overall logistical solutions to lower the logistical costs of customers, elevate the comprehensive competitiveness of the company and enhanced the company’s ability to resist against periodic fluctuation of the market.

In 2016, container shipping volume of the company totaled 16,902,790, up 54.4% year-on-year. In 2016, revenue of container shipping and related businesses totaled RMB66,569.03 million, up RMB14,517.844 million or 27.89% year-on-year. Revenues of different shipping lines all increased. Among international shipping lines, growth rate of revenue of Central Asia-Europe shipping lines reached as high as 51.06%, and that of domestic trade shipping lines reached 56.36%.

2) Terminal business

In 2016, COSCO Shipping Ports completed the acquisition of China Shipping Ports Development and sale of Florens under the background of restructuring of COSCO Group and China Shipping Group. In accordance with the group’s overall arrangements and requirements on integration and restructuring of terminal business, COSCO Pacific and COSCO Shipping Ports made integration and restructuring. After restructuring, the company’s name was changed into COSCO Shipping Ports Co., Ltd. Currently, the company has 48 terminal companies under its affiliation, including 10 controlling terminals and 38 shareholding terminals.

In 2016, total throughput of the company reached 95.072 million TEUs, up 5.1% year-on-year. Revenue of terminal and terminal-related business totaled RMB3,762.67747 million, up RMB267.321 million or 7.65% year-on-year. Of which, revenue of Greek Terminal totaled RMB1,175.156 million or 18.69% year-on-year, and that of Nansha Terminal totaled RMB1,011.961 million or 11.77% year-on-year.

5.2.2 Influence of climate change

The global environmental issue brought by climate change raised more and more concerns of all circles of the society. The safety risk and financial impacts of climate change on the Company are as follows:

1. Risks brought by climate change

Climate change affects the rules of occurrence time, movement path and intensify of typhoon, and increased the number of days with poor visibility, bringing safety risks to ships navigating in different sea areas of the world.

Part V Creating Profits for Shareholders

Increase of typhoon and bad weathers with poor visibility need more shore-based labors and materials to guide navigation safety of ships. In the meantime, the navigation time and non-production berthing time of ships at port may be increased correspondingly. International community and port countries formulate new conventions and rules to cope with the impacts of climate change, bringing new financial risks to the Company.

2. Financial impact brought by climate change

In order to prevent against the possible harms brought by typhoon, the Company input more labors and materials in creation of organizations, shore-based safeguard and coordination sectors, and suffered from increase of ship navigation time and milestone and delay of schedules due to influence of typhoon. In 2016, a total of 25 tropical cyclones in Northwest Pacific Ocean, affecting 192 ship-times of the company.

In order to alleviate the global environmental pressure, response to the country's appeal for energy conservation and emission reduction, and reduce emission and energy consumption, the company further increased the inputs to energy conservation, emission reduction and environmental protection in 2016, and made new breakthroughs in green operation continuously. Fuel consumption was reduced through measures such as lowering the navigation speed, optimizing the shipping liens and conducting energy-conservation technical reform, so as to reduce the total emission of CO₂, SOx and NOx.

Besides, the Company responded to the "green ship flag" action of California State, America, which requires ships to lower the navigation speed ahead of time, control the navigation speed to below 12 sea miles and change from heavy oil into light oil with relatively low sulfur content when entering and exiting the port, so as to reduce the air pollution. As the price of heavy oil and light oil is 1:1.8, the Company needs to pay more when buying light oil for ships.

Part VI Struggling Ceaselessly for the Environment

6.1 Management approaches

The Company takes the guidelines of “abiding by laws and regulations, preventing against pollution, following emission standards, all-staff participation, energy conservation and waste reduction, and making continuous improvement for environmental protection”. It pays close attention to energy conservation, emission reduction and environmental protection work, strictly followed domestic and overseas laws and regulations such as Law on Protection of Ocean Environment, Environmental Protection Law, Energy Conservation Law, Law on Prevention and Control of Environmental Pollution of Solid Wastes and International Convention to Prevent Against Pollution of Ships, reduces the pollution and damage on ocean environment to the maximum extent, and promotes prior and environment-friendly development of shipping ecology. In 2016, the Company continued to strengthen the energy conservation and emission reduction, actively cultivated green competitiveness, voluntarily improved the environmental protection system of the enterprise, and took environmental protection as an important part for environmental protection work. It established effective environmental management mechanism, actively propelled its subsidiaries to carry out the establishment and certification of environmental management system, and achieved good results in environmental protection of container shipping and port businesses. Related subsidiaries have introduced ISO14000 environmental management standards, established and operated environmental management system, and passed third-party certification. In the meantime, ISMC rules were introduced, and safety management system was established to prevent against the pollution of shipping business on ocean environment.

Subsidiaries of the Company set up concrete posts for tracking and analyzing the domestic and international environmental protection trends, researching and formulating environmental protection-related policies and measures, supervising and guiding all levels of posts to effectively implement the environmental protection-related plans, and dealing with and disposing insufficiencies in environmental protection work.

All subsidiaries of the Company enhanced the supervision on environmental protection behaviors through internal and external audit procedures of environmental management system, daily and annual evaluation procedures and mechanism to solicit opinions of stakeholders, made improvements through corrective and preventative measures for insufficiencies found, improved environmental performance ceaselessly, and created a safe and environment-friendly PDCA recycling management system.

All subsidiaries of the Company set up posts for external communication and exchange of energy conservation and environmental protection, including information communication and negotiation with stakeholders such as regulatory organs, related industrial organizations or institutions and groups, promoted environmental protection guidelines and concepts, and replied and accepted the inquiries, suggestions and complaints of stakeholders. They also identified, analyzed and appraised the risks related to energy conservation and environmental protection, fully considered the interests and demands of stakeholders, enhanced collaboration and cooperation, properly dealt with interest conflicts with stakeholders, and realized the opportunity and risk-sharing with stakeholders.

In 2016, the Company didn't have any ship pollution accidents or port pollution accidents that may have impacts on the environment, nor receive any penalties or fines thereof.

Part VI Struggling Ceaselessly for the Environment

6.2 Performance indicators

6.2.1 Energy

The Company is mainly engaged in container shipping, terminal and port businesses, and takes oil and electricity as main energies. Energy consumption of container shipping mainly focuses on fuels used by ships. The Company established energy management system to enhance the control of energy management, constantly improve energy performance, and realized the transformation from focus on single-equipment energy efficiency and system unit to focus on energy efficiency of entire company through management energy-conservation, structural energy-conservation and technical energy-conservation.

Energy consumption of fleets of the Company in 2016:

Fuel (10,000 tons)	Diesel (10,000 tons)	Consumption volume of lubricants (ton)	Single-unit energy consumption (kg/1,000 ton sea mile)
421.9	14.83	9197.8	4.84

Energy consumption of office buildings of COSCO Shipping Lines in 2016:

Year	Electricity (KWH)	Gas (M³)	Water (M³)	Paper (ream)
2016	5,917,380	405,368	45,241	3,310

Energy consumption of COSCO Shipping Ports in 2016:

Gasoline (ton)	Diesel (ton)	Electricity (KWH)	Single-unit energy consumption (ton standard coal/RMB10,000)
130.52	11,935.48	78,226,649	0.12

Notes: Aforesaid data only cover eight share-holding terminals in China including Jinjiang Pacific, Yangzhou Yuanyang, Xiamen Yuanhai, Guangzhou Nansha, Quanzhou Pacific, Jinzhou New Times and Lianyungang. The Company will expand the disclosure scope gradually.

Part VI Struggling Ceaselessly for the Environment

The Company widely applied lean management in energy conservation activities, insisted on process management on fuel consumption of ships, timely summarized the single-unit fuel consumption of ships, and guided the ships to lower fuel consumption. It clearly specified the responsible person for fuel consumption work, and excluded the fuel consumption into performance evaluation indicators. It formulated relatively complete management measures, and developed ship fuel consumption information management platform to analyze the fuel consumption of ships during operation, track the fuel and lubricant consumption of different types of ships, formulated the quota for fuel and lubricant consumption of ships in a scientific and reasonable manner, and effectively controlled the fuel consumption of ships. In 2016, the single-unit fuel consumption of ships dropped by 5.1% year-on-year compared with 2015.

In 2016, the Company continued to enhance the development and application of energy conservation and emission reduction technologies, and invested over RMB23 million for energy conservation and emission reduction. The main project is refitting of four 10000-TEU ships of COSCO Asia series. So far, the refitting had completed and the Company is tracking the using effects after the refitting. In the meantime, the Company applied MARORKA ship energy-efficiency system at 21 large-sized container ships newly built by the Company, and conducted comparable test on MARORKA ship energy-efficiency system at two 10,000-TEU ships under operation. So far, the refitting work is in progress. By making use of the navigation halt time, we also refitted the ship-shore telegraph receiving devices of COSCO Asia.

In 2016, COSCO Shipping Lines insisted on energy conservation and emission reduction work from personnel, technology and management, spared no efforts to promote low-speed navigation of ships and energy efficiency management of ships, and controlled the total fuel consumption volume of single-unit energy consumption at a relatively low level, bringing both favorable economic benefits and social benefits to the Company and receiving good comments from the government and all circles of the society. The Company received the honorable title of “Advanced Enterprise for Energy Conservation and Emission Reduction of Shanghai’s Traffic Industry during 12th Five-year Plan Period”. The Technical Energy Conservation Project of Ships with Booster Blocking Technology of the Company appraised as Demo Project for Energy Conservation and Emission Reduction of Shanghai’s Traffic Industry during 12th Five-Year Plan Period. The Refitting Project of Shore-based Electric Device of 10,000-TEU Ship appraised as demo project for energy conservation and emission reduction by the Ministry of Transport.

In 2016, the Company greatly promoted energy conservation and emission reduction technologies at newly-built ships. Energy conservation and emission reduction technologies applied at 9,400-TEU to 14,500-TEU projects include: (1) Optimizing line of ships based on practical operation mode, and reasonably selecting designed navigation speed and gauge; (2) Increasing the contents and requirements of ship model tests to meet EEDI Phase III standards, and increasing the vertical tests at different gauges and navigation speeds; (3) Equipping high-efficient full-balanced helm with energy-conservation devices to improve promotion efficiency and lower the erosion; (4) Selecting super-long stroke electric machine and adopting low-load operating mode + waste gas side ventilation technology to lower unit oil consumption; (5) Arrangement of fuel cabin complies with rules on protection of fuel cabin; (6) Setting up independent ultra-low-sulfur fuel system to satisfy the requirements of emission restricted area; (7) Installing auxiliary waste gas machine; (8) Installing oil residue recycling device; (9) Installing ballast water disposal devices; (10) Installing high-voltage shore-based electricity system; (11) Some regions adopt LED lighting; (12) Adopting high-efficient and pollution-prevention paints to reduce resistance of ship body; (13) Equipping vertical optimization modular for loading PCs; (14) Installing energy efficiency management system of ships to collect and monitor fuel consumption of ships. Moreover, 19,000/20,000TEU ships will be added with following energy conservation and emission reduction technologies: (1) Cooling sea water pump frequency variation and control technology; (2) Wind machine frequency-variable and control technology (only 20,000-TEU ships); (3) Energy-conservation devices for air-conditioning system (only 19,000-TEU ships).

Part VI Struggling Ceaselessly for the Environment

COSCO Shipping Ports actively promoted the energy conservation and emission reduction work, and the main energy conservation and emission reduction projects include: The Company tried to protect the environment through optimization of port operation, improve the energy efficiency and reduce carbon emission through development and implementation of advanced environmental protection technologies. It encouraged its subsidiaries to adopt energy efficiency policies and measures. As part of the efforts, the Company replaced high-voltage sodium light with LED lighting at its controlling terminals since 2014. Moreover, Ningbo Yuandong Terminal implemented “green lighting”, saving 118,000,000kwh of electricity and reducing 335 tons of carbon emissions each year. The Company also took comprehensive measures to improve terminal operation, promote electric operation of exiting infrastructures, so as to reduce air and greenhouse gas emission. For instance, the Group realized electrification of 64 yard cranes of Guangzhou Nansha Terminal, reducing the oil consumption by 4,100 tons per year, equaling to reduction of carbon dioxide emissions by 12,000 tons. Moreover, some berths and yards of Xiamen Yuanhai Terminal are adopting fully-automatic operation, and gradually implementing the electrification of tyre-typed crane. Aforesaid measures can reduced the carbon dioxide emissions by 84% compared with traditional terminal operation. Moreover, Zhangjiagang Yongjia Container Terminal stored the engine energy wasted in braking process through refitting of air power of tractors, and release the energy in start-up process, so as to reduce the energy consumption of engine and reduce the fuel consumption. Currently, the company is in the stage of tracing and test of energy conservation effects. It is estimated that this can save the fuel consumption by 12% further.

6.2.2 Water resources

Water resource is an indispensable and important natural resource for development of national economy, and also the rare and valuable resource at present. Water resource issue is not merely a resource issue, but also an important strategic issue related to economic and social sustainability of the country. Efforts should be made to use the water resources in a reasonable and sufficient manner based on rules of water cycling, promote update of water resources, cherish water resources, so as to realize sustainable utilization of water resources. Power consumption of COSCO SHIP HOLD’s subsidiaries mainly comes from water supplying system and desalted seawater, and has fewer impacts on rivers, lakes, underground water and glaciers. The Company formulated rules and regulations to bring water consumption in production and office building and use of fresh water by ships into daily management work, helped employees to cultivate the awareness of cherishing water resources and establishing correct water consumption concept from propaganda and training work, and enhanced fresh water conservation work from management and technical aspects.

Ship-based water conservation and shore-based water conservation are key water conservation measures of the Company. With respect to water conservation of ships, the Company installed seawater desalting devices at all ships to desalt the seawater by making use of the waste heat of main engine, which are used as living water of seamen and equipment cooling water, so as to reduce the fresh water supplies of ships and reduce fresh water consumption. Related ports and terminals also took part in water conservation actions actively and achieved satisfactory results.

Fresh water consumption in 2016:

Total fresh water consumption of COSCO Shipping Lines

Total fresh water

Freshwater consumption volume of fleets (334,121.1 tons)		Freshwater consumption consumption of COSCO volume of office buildings Shipping Ports	
Living water	Seawater desalting		
250,885.3 tons	83,235.8 tons	45,241 tons	2,962,584 tons

Part VI Struggling Ceaselessly for the Environment

6.2.3 Waste gas emission

The Company responded to the appeal of international shipping industry to control carbon dioxide emissions and reduce greenhouse effects, and tried to take measures to lower carbon dioxide emissions in all sectors. With respect to new ship design, fleet operation, office building and transportation, it started from system, equipment and management, enhanced the control, advocated green operation and low-carbon navigation, and tried to lower and reduce the waste gas emission to the maximum extent.

The Company also reduced the waste gas emissions by conducting technical reform on the equipment, improving fuel combustion efficiency, increasing the use of low-sulfur oil, and controlling and reducing the tail gas emission of vehicles. Use of low-sulfur oil is an effective measure to reduce emission of SO_x. All ships of the company further enhanced the contract performance, continued to use low-sulfur fuel in specific area in accordance with the requirements of Appendix VI of MARPOL, so as to reduce the emission. In 2016, it continued to perform the rules and regulations of Montreal Convention carefully, insisted on using Freon-free refrigerator, and cooling system of ships also used Freon-free cooling agent to control emission of ODS.

In 2016, total greenhouse gas emissions of the company were as follows:

CO ₂	NO _x	SO _x
12.201 million tons	341,000 tons	235,000 tons

Greenhouse gas emission intensity of fleets in 2016 were as follows:

	Average figure of fleets of shipping companies joining CCWG	Fleet of COSCO SHIP HOLD
CO ₂ (dry container)	45.08 (g/TEU•Km)	40.45 (g/TEU•Km)
CO ₂ (refrigerating container)	76.06 (g/TEU•Km)	73.46 (g/TEU•Km)
SO _x	0.82 (g/TEU•Km)	0.68 (g/TEU•Km)

Sources: Database of CCWG (Clean Cargo Work Group). Greenhouse gas emission intensity is g/TEU•Km.

Greenhouse gas emissions of COSCO Shipping Ports in 2016:

Carbon dioxide	Year-on-year Growth Rate Compared with 2015
37,119 tons	8.34%

Notes: This was mainly caused by formation of two new controlling terminals after merger of COSCO Group and China Shipping Group in July 2016, and increase of throughput of some terminals. In 2016, the single-unit consumption is 0.12 tons standard coal/10,000 yuan, same with that in 2015.

Part VI Struggling Ceaselessly for the Environment

6.2.4 Sewage and garbage

Disposal of sewage and garbage is related to economic, environmental and social sustainability, and will directly affect environmental quality, ecological balance, resource utilization and daily life of people. In production management process and ship operation process, companies affiliated to COSCO Shipping Holdings abide by related regulations released by IMO as well as related national rules and regulations, requiring shore-based organs and ships of the Company to take the environmental protection and pollution reduction as their own tasks, and operated in accordance with provisions of the international conventions and Articles of Association carefully. Efforts were made to reduce production volume of oil pollution, solid garbage and sewage, and strictly followed the international conventions on special region and oil-containing volume of ships. It also established strict and complete management systems and formulated operation rules on disposal of oil pollution of ships, sewage discharge management and other activities.

The office buildings signed the Property Management Service Contracts with the property management units to specify the service scope and management responsibilities. In the meantime, daily inspection and maintenance on drinking water facilities, gates and pipelines of office buildings were enhanced, and some old facilities were repaired and changed to avoid waste of drinking water due to malfunction of facilities. When cleaning the water tanker of office buildings and caring the trees and flowers, special attention was paid to water conservation. Use of central air-conditioners was controlled to lower the consumption of cooling water. Propaganda on water conservation was made among employees, inspection on water consumption situation was enhanced, and fresh water consumption volume was compared on monthly basis to eliminate waste of water resources. Water used by the office building was supplied by the government, and sewage of the office building was discharged via sewage emission pipelines of the city. Sewage from kitchen was discharged into sewage pipeline of the city after separation of oil and water in accordance with related regulations.

Garbage generated at the office building was classified in accordance with garbage classification requirements of urban area, and agreements were signed with qualified environmental sanitation management center and wastes delivery centers. In the meantime, auxiliary facilities of sewage pool were maintained regularly to ensure the disposal ability of living sewage of the office building, ensure compliance of sewage discharge standards.

Part VI Struggling Ceaselessly for the Environment

In 2016, shore-based units and ships of the Company had no leakage or pollution accidents, nor received any economic or non-economic penalties. The Company also regulates that orders for shipping of poisonous wastes listed in Appendix I, II, III and IV of Basel Convention are not accepted.

Total sewage and garbage emissions of fleets in 2016:

Solid wastes disposed at shore (cubic meters)	Sewage discharged after disposal (tons)
1,974.17	7,657.3

Slop disposed at shore in 2016:

Total volume of slop disposed at shore (tons)	Volume of slop disposed at shore for each ship (tons)
23,184.3	241.5

Sewage and garbage emission of office buildings of COSCO Shipping Lines in 2016:

Sewage emission (cubic meters)	Total volume of garbage (tons)
40,716.9	92.48

Part VII Providing Opportunities For Employees

7.1 Management approaches

With the target of ensuring occupational health and safety of employees, and creating harmonious labor relations, the Company started from sustainability strategies, further innovated the ideas, improved management, optimized the structure and created harmonious atmosphere, and established the entrepreneur team, technician team, operation and management team and seamen team that are suitable to development strategies of the company.

The Company developed policies related to staff recruitment, management and use, occupational health, labor safety and welfares based on related laws, rules, regulations, conventions and degrees home and abroad. COSCO Shipping Lines further deepened the reform of human resources system, established seamen information system, and ensured that the company could have a fleet team with sufficient members, reasonable structure and excellent quality. It established occupational health and safety management system in accordance with OHSAS1800 and ISM rules to enhance the management of labor safety and occupational health.

The Company maintained legal rights and employees of seamen, established harmonious labor relations, and realized “decent work and life” of seamen. COSCO Shipping Lines actively performed the responsibilities and obligations in the Convention on Maritime Labor to ensure safety and health of seamen, and make sure that the on-board working environment is favorable for occupational safety and health of seamen.

The Company formulated annual training plans based on strategic development planning and annual targets to promote the overall development of human resources, and created communications for employees and top management such as workers’ congress, president’s mailbox, democratic life conference and irregular symposium.

Subsidiaries of the Company supervised and guided the occupational health and safety production of the company by making use quarterly inspection on management system, internal audit and management appraisal, and accepted the supervision of the public and the employees through “transparent company affairs” and workers congress.

The Company insisted on the strategies of “people-orientation and promoting development of enterprise with talents”, paid attention to career development of employees, and integrated the career development demands of employees with development planning of the enterprise. By establishing fair, transparent and just talent selection mechanism, providing diversified cultivation channel, it encouraged employees to elevate its comprehensive ability in a comprehensive manner, and promoted co-development of the enterprise and the employee by formulating and implementing career development planning of the employees. It created amiable working environment and conditions, enhanced the main responsibility for safety production, effectively prevented against significant accidents and controlled common accidents and small accidents, adopted effective preventative measures to ensure health and safety of employees.

Part VII Providing Opportunities For Employees

7.2 Performance indicators

7.2.1 Employment and labor relations

The Company paid close attention to diversification employees, implemented “global thinking and local operation”, absorbed and used excellent international talents sufficiently, and actively promoted the globalized operation and development. With respect to remuneration of employees, the Company strictly abides by the regulations of local governments on minimum wages, and ensured that the basic salaries of employees are not lower than the legal requirements; With respect to employment and dismissal of seamen, the Company formulated the anti-discrimination policies (please refer to 8.2.1) and tried to realize diversification of employee structure. It reasonably evaluated the contribution and treatment of employees through performance evaluation mechanism. It signed and performed the labor contract in accordance with the Labor Law, and had no disputes due to employment or dismissal in 2016. With respect to welfare and other treatment, the Company strictly followed the regulations of the Labor Law on 40 working hours per week and the extra working time of no more than 36 hours per week. Employees can enjoy all holidays as specified by the law, including the annual holidays and the child-birthing holiday. The Company purchased social insurances for employees in accordance with the laws, covering pension, medical, work-related injuries, childbirth, unemployment insurance and housing fund, and the insurance participation rate reached 100%. It also purchased supplementary medical insurance and insurance for accidental injuries due to traffic accidents. It formulated the Interim Management Methods of Annuity in accordance with related national rules and regulations, and promoted the work in the system. It also formulated the paid holiday and other holiday systems, and strictly followed the national and local rules on labor protection of female employees, birth control awards and subsidies.

All levels of trade unions performed their obligations to protect legal rights and interests of employees with a focus on development strategies and targets and central tasks of the enterprise, coordinated labor relations, mobilized the activeness and creativeness of employees, promoted the construction of a harmonious employee, and promoted healthy development of the enterprise. The Trade Union made ceaseless efforts to enhance its cohesive force with organizational building as the basis, mechanism building as the center, organized employees to be involved in democratic decision-making, democratic management and democratic supervision through workers’ congress and other forms, pay attention to the role of joint president of the workers’ congress in democratic decision-making during close of the worker’ congress, actively promoted the tour inspection work of workers representatives, and enabled the employees to executive their democratic management and supervision right in significant issues related to operation and management of the company as well as issues related to their rights and interests. It innovated on the form for transparency of company affairs and developed a number of effective forms such as conference for transparency of company affairs, information column for transparency of company affair, dialogue mechanism between leaders and employees, employees’ symposium and special conference. It also established the advanced notice system of important items, with the announcement ratio reached as high as 100%.

Part VII Providing Opportunities For Employees

Number of employees of COSCO Shipping Ports:

		By gender			By age	
	Total	Male	Female	Below 30	30 - 50	Above 50
Formal labors	3,372	2,860	512	969	2,133	270

Number of employees at COSCO Shipping Ports by nationality:

		By gender			By age	
	Total	Male	Female	Below 30	30 - 50	Above 50
Chinese	3,108	2,642	466	949	1,913	246
Non-Chinese	264	218	46	20	220	24

Statistics of resigned employees of COSCO Shipping Ports:

		By gender			By age	
	Total	Male	Female	Below 30	30 - 50	Above 50
Number of resigned employees	154	127	27	53	93	8
Turnover rate	4.57%	4.44%	5.27%	5.47%	4.36%	2.96%

Number of employees of COSCO Shipping Lines:

	Self-owned employees		
	Below 30	30 - 50	Above 50
Domestic	2,985	9,160	1,973

Classification of employees of COSCO Shipping Lines:

	Self-owned employees			Employees from labor dispatch companies	
	Shore-based Male	Female	Seamen Male	Shore-based	Seamen
Home	6,830	4,465	2,823	2,132	4,481
Abroad		4,104			
Total		18,222		6,613	

Statistics of resigned employees of COSCO Shipping Lines:

		Resigned employees		
	Total	Below 30	30 - 50	Above 50
Number of resigned employees	578	127	412	39
Turnover rate	2.3%	0.5%	1.7%	0.2

Notes: Aforesaid resigned employees include 149 seamen (of which, 10 are below 30, while 139 are aged between 30 to 50).

Part VII Providing Opportunities For Employees

7.2.2 Occupational health and safety

The Company paid close attention to safety and occupational health work, strictly followed the national rules and regulations on safety production such as the Safety Production Law, insisted on the guidelines of “safety first and prevention is the priority”, took the safe and harmonious development as the first task, and insisted on the development concept of “promoting development with safety”. In order to enhance safety production management of the Company, subsidiaries of the Company established quality management system and safety production standards, and invited internal and external third parties to review the effectiveness of comprehensive quality management system and safety production standardization on regular basis. Inspection and evaluation on establishment of safety management institutions, safety team building, inspection of potential safety risks, safety production risk identification and control, implementation of emergency response plans, safety-related activities, transportation of dangerous chemicals and large cargos, and safety culture building were made on regular basis to ensure effective progress of safety management work.

The Company implements first-hand responsible system for safety responsibilities. All levels of companies and ships all set up safety production committees, which are mainly responsible for implementation of national laws and regulations on safety production, research on key measures in safety production work, coordination and solution of key issues in safety production work, guidance on safety production work, and giving guiding opinions on common and trending issues in safety production work. The safety production committee sets up a general office to deal with daily safety production and occupational health work, hold symposium and summary meeting on safety production work on regular basis, organize inspection, appraisal and survey on safety production, occupational health and environmental protection of ships and shore-based units. The safety production committees of ships were also responsible for safety operation of ships, avoid personnel injuries and deaths and protect health of seamen.

The Company timely reported, calculated, survey and dealt with injuries and death of employees in accordance with the Rules on Report, Survey and Dealing of Safety Product Accidents, and took measures to prevent, control and eliminate occupational diseases in accordance with the Law on Occupational Disease Prevention of the People's Republic of China.

When occurring work-related injuries or other accidents threatening safety of employees, related units informed the trade union timely, and the trade union organized the survey on significant injury and death accidents and offered suggestions.

Statistics of occupational health and safety accidents:

Year	Work-related injuries	Number of injuries		Number of deaths		Ratio of work-related injuries	Ratio of occupational disease	Working days affected	Ratio of working days affected	Days of absence	Absence ratio
		Male	Female	Male	Female						
2016	8	7	1	0	0	0.0349	0	440	1.9249	0	0

Notes:

1. Work-related injury ratio, occupational disease ratio, ratio of working days affected and absence ratio are all calculated in accordance with formulas in GRI Guidelines.
2. Number of working days delayed: Time in which the labors can't do daily work due to work accidents or occupational diseases.
3. Days of absence: Absence time of employees due to lose of working ability including but not limited to work accidents or occupational disease.

Part VII Providing Opportunities For Employees

7.2.3 Training and education

The Company insisted on people-oriented education and training ideologies, insisted on the strategies to promote development of the enterprise with talents, and focused on elevation of overall quality of employees. It formulated plans for cultivation of various talents, provided sufficient budgets, integrated training with practices closely, actively offered training for enterprise operating and managing personnel and technicians, and elevated the management level and market competency of the enterprise continuously. It paid close attention to elevation of staff quality and personal development, established high-efficient training system, improved the system continuously, formulated annual training plans based on business demands, enhanced the management and responding ability of employees through training, and enabled them to meet the talent requirements of listed companies. It paid attention to cultivation of professional talent teams, organized training classes for professionals based on long-term and short-term development planning and targets, or dispatched employees to attend training and classes at related institutions home and abroad. It elevated the quality of professionals through training and practice, cultivated a professional talent team with solid willingness, strong professional skills and progressive spirits, and did a better job in talent reserve for sustainability of the enterprise. In 2016, the training proportion of employees in different types and genders is 100%.

In order to ensure healthy development of fleet, it further enhanced building of seamen team based on development planning of seamen team, took the safety training as a key measure to elevate safety quality of employees, and took the “enhancement of safety training and elevation of comprehensive quality of frontier seamen” as the basis to ensure safety production. The seamen management department strictly controlled the recruitment, training, elevation and dispatch of seamen from the origin, made ceaseless efforts to elevate the safety skills and occupational ethics of them under the principle of “insisting on training and making continuous elevation”, and ensure the cultivation of a seamen team with sufficient numbers, excellent quality and reasonable structure.

Part VII Providing Opportunities For Employees

Training situations of COSCO Shipping Port by gender and type of employees:

Type	Total Number of persons	Total time	Male			Female		
			Number of persons	Training proportion	Average training time	Number of persons	Training proportion	Average training time
Top management	36	132	35	100%	3.7	1	100%	3.7
Middle management	107	236	86	100%	2.2	21	100%	2.2
Grassroots management	1,555	3,464	1,261	100%	2.2	294	100%	2.2
Technicians	1,237	2,125	1,174	100%	1.7	63	100%	1.7

General training situations of COSCO Shipping Lines:

Type	Total Number of persons	Total time	Male			Female		
			Number of persons	Training proportion	Average training time	Number of persons	Training proportion	Average training time
Seamen	7,304	176,532	7,304	100%	24.2	0	—	—
Land-based employees	13,440	36,074	7,972	100%	2.9	5,468	100%	2.3

Training situations of COSCO Shipping Lines by gender and type of employees:

Type	Total Number of persons	Total time	Male			Female		
			Number of persons	Training proportion	Average training time	Number of persons	Training proportion	Average training time
Top management	71	1,496	55	100%	21.1	16	100%	21.1
Middle management	183	2,194.5	128	100%	12.0	55	100%	12.0
Grassroots management	289	1,833	194	100%	6.3	95	100%	6.3
Common employee	670	2,747.5	370	100%	4.1	300	100%	4.1

Part VIII Human Right And Duty Performance

8.1 Management approaches

The Company brought the principles and requirements of non-discrimination, freedom of association and collective negotiation, prohibition of use of child labor and forced labor into its sustainability management in accordance with the World Declaration on Human Rights, the International Convention on Economy, Society and Cultural Rights as well as the Labor Law, the Labor Contract Law, the Rules on Prohibition Use of Child Labor, the Law to Guarantee Rights of Women and the Trade Union Law. It strictly followed the international conventions and the applicable national laws and regulations, implemented the national conventions, international labor standards and other applicable industrial standards committed by Chinese Government. By signing Collective Contract and the Special Collective Contract on Labor Protection of Female Employees, it tried to ensure legal rights and interests of enterprise and employees, and keep stable and harmonious labor relations. It improved the workers' congress system in accordance with the Trade Union Law of the People's Republic of China and the Articles of Association of Chinese Trade Union to ensure that the trade union can carry out the work independently. Democratic supervision was made to realize democratic management and protect legal rights and interests of employees. Trainings were organized to enhance the right protection awareness of employees, and related systems such as Employees Manual, Rules on Administrative and Human Resources Management and Labor Insurance Management Procedures were formulated to specify the holiday-taking right and guarantee measures of employees. In supply chain, it required the suppliers not to use child labor or forced labor, and knew compliance situations of suppliers through the annual questionnaire.

8.2 Performance indicators

8.2.1 Non-discrimination

The Company formulated the anti-discrimination policies, systems and provided equal employment opportunities and welfares in strict compliance with international conventions, rules & regulations and various guidelines. Domestic and overseas outlets of the Company, including overseas ports acquired, clearly opposed discrimination for race, skin color, gender, religion, political opinions, nationality or social status. The Company also paid special attention to protection of female workers, and create a respectful, equal, free corporate environment. The Company enhanced communication and exchange, encourage employees to attend discussion on management of the company, so as to show value and contribution of the employees, and ensure the employees to enjoy the right for equal participation and development. It also established effective supervision mechanism to ensure implementation of non-discrimination principles in all operating activities.

In 2016, the headquarters and all its subsidiaries, including domestic and overseas outlets, didn't receive any complaints on discrimination events.

Part VIII Human Right And Duty Performance

8.2.2 Association freedom and collective negotiation

The Company and its affiliated established the trade union in accordance with the Trade Union Law of China. Employees can determine whether to join the trade union or not. The Company also established workers' assembly system, which shall vote for annual operation targets and important events as well as important decisions related to rights and interests of employees. The workers' congress organized representatives of employees to appraise leaders of the company on regular basis, and system reform and restructuring plans of the company shall be approved by the workers' congress. The Trade Union signed Collective Labor Contract with the company on behalf of all employees to specify matters such as payment, working time, holidays, labor health, occupational training, insurance & welfare, so as to protect legal rights and interests of employees. The Trade Union also signed Special Collective Agreement for Labor Protection of Female Employees with the company on behalf of the employees to specify the special labor protection items for female employees.

In 2016, the headquarters and all its subsidiaries, including domestic and overseas outlets, didn't receive any complaints on affecting employees' freedom to join the trade union.

8.2.3 Child labor

The Company strictly abides by national laws and regulations in use of labors, and strictly prohibits use of child labor. The Human Resources Department established detailed recruitment regulations and reviewing procedures to avoid wrongly employment of child labor. In the meantime, it established the procedures to rescue child labors in accordance with requirements of SA8000 as the remedy measure for wrongly use of child labor.

After risk assessment, the Company believed that employment of seamen and shipyards and other supplies in the supply chain are the high-risk areas of child labor due to ineffective supervision. Therefore, the Company put special emphasis on guidance and supervision on Human Resources Department and avoided employment of child labor due to mistaken from all sectors. Moreover, ship transportation, ship-repairing and shipbuilding are belonging to high-risk operation. The Company prohibited the use of employees aged below 18 to do such work.

In 2016, neither the company nor the suppliers used any child labors, or use youths in poisonous or high-intensity work.

Part VIII Human Right And Duty Performance

8.2.4 Forced labor

The Company strictly implemented related requirements of the Labor Law, and respected the employees' freedom of selection and work. New staff training was arranged for employees upon their enrolment to introduce labor rules and regulations of the company as well as requirements of labor laws and regulations, enabling them to know their rights and obligations. Detainment of certificates or charge of deposits or training fees is strictly prohibited. Existing employees can also enjoy the right of freedom at work as specified in the labor laws and regulations. The Company strictly prohibited forced labor for any reasons, nor limited freedom of employees by any ways.

After risk assessment, the Company believed that employment of seamen and shipyards and other supplies in the supply chain are the high-risk areas of forced labor due to ineffective supervision. Therefore, it specially emphasized on inspection and supervision in these areas, organized various trainings and promotions to enable the employees to know different forms of forced labor, so as to enhance their law-compliance awareness.

In 2016, neither the company nor the suppliers were found of using forced labor or limiting freedom of employees.

8.2.5 Remedy for non-compliance behaviors

The Company established social responsibility management system to specify the measures to be taken when child labor is used wrongly or forced labor occurred due to mistakes of some individuals: (1) Send the child labor or forced labor to hospital for physical inspection, arrange them to accept the treatment if there are any diseases caused by the company, and all the medical fees shall be paid by the company; (2) Contact with the guardian or direct relatives to send them home at the company's expense; (3) Provide related educational fees or economic compensation for child labor or forced labor involved. The education fee for child labor shall cover the compulsive education as required by the country; (4) Report related situations to regulatory department, check mistakes of the company in management process, investigate liabilities of related persons, and avoid occurrence of similar issues.

Part IX Contribution For The Society

9.1 Management approaches

The Company insisted on spirits of being a responsible enterprise, tried to establish good relationships with communities of regions where it operates, and promoted prosperity of the community. It sets up the Sustainability Committee and External Public Relations Department to keep favorable cooperation relationships with the community. It sets up supervision and disciplinary inspection sections for management of marketing and sales department of related companies, and implementation of international and national policies and regulations on anti-monopolization and anti-unfair competition. The Company included the rules to prevent against bribery, extortion, fraud and money-laundering into daily management evaluation and annual evaluation of management team of the Company, and related indicators were listed in evaluation scope of civilization construction. The Company strictly implemented the “UN Convention on Anti-corruption”, the Law against Unfair Competition, the Law against Money Laundering and the provisions on connected transaction in the Company Law. It formulated the Implementation Opinions for the Outlines for Establishment and Improvement of System to Punish and Prevent against Corruption That Focuses on Education, System and Supervision. The Disciplinary Inspection Committee and the Audit & Supervision Department are responsible for anti-corruption work in accordance with the Working Procedures for Internal Audit, organized communications and education on anti-corruption-related policies and regulations, and investigated on and dealt with related violating events and cases. In the meantime, the Company opened hotline and mailbox for report of bribery and extortion cases, encouraged employees to report on bribery behaviors. The Company carried out the evaluation of social honesty that aims to investigate on stakeholders and communities, actively explored the dialogue with community and the public, feedback opinions of stakeholders timely, sought for improvement opportunities, and established harmonious and honest relationships with stakeholders. In daily management and business operation process, it enhanced IPR protection work in accordance with related laws of the country.

9.2 Performance indicators

9.2.1 Community participation

The Company tried to deepen the cooperation with stakeholders in the community, paid attention to possible influence of operation and management activities on sustainable development of local community, and created value from employment creation, environmental protection, poverty-alleviation and tax revenue contribution. When entering, operating and leaving the venue, it conducted evaluation on social health and safety impact related to infrastructure, dangerous materials, pollution emission, sanitation and disease, and took effective management measures to avoid and alleviate the negative influences.

Health & safety and environmental protection are important focuses of the Company. Through cooperation with governmental departments, military units, non-profitable organizations and private groups in the community, the Company established good image in the community, created harmonious social atmosphere and contributed to overall development, harmony and progress of the community.

Part IX Contribution For The Society

1) Undertaking the obligations to alleviate the poverty

Currently, we have entered the new time for construction of a well-off society in a comprehensive manner, the Company focused on the spirits conveyed in the Notice on Opinions to Innovate on System and Mechanism and Steadily Promote Poverty-alleviation and Development of Rural Areas and the Notice on Printing and Issuing the Implementation Plans for Establishment of Accurate Poverty-alleviation Working Mechanism, and promoted the implementation of accurate poverty-alleviation work from two aspects, namely poverty-alleviation awareness and working procedures. The Company actively implemented and acted in the spirits conveyed at the work conference of central government on poverty-alleviation and development work, and the group's requirements on poverty-alleviation work, brought into play the advantages of the group and industrial resource platform, insisted on accurate poverty-alleviation and innovated on the poverty-alleviation measures. In accurate poverty-alleviation project, the Company specially focused on basic education in remote rural areas, and improved local studying conditions and environment through accurate poverty-alleviation.

Since 2010, COSCO Shipping Lines selected employees with high comprehensive quality and English/PC level to power education of Yongde, and had dispatched eight teachers till now. In 2016, South China Branch of COSCO Shipping Lines donated 50 PCs to poverty-alleviation office of Yongde County for improvement of IT education conditions of eight elementary schools. In the meantime, some employees of South China Region donated RMB3756 for Wenlang Town Jinwen Elementary School, Huaiji County, Zhaoqing City, Guangdong Province for purchase of stationaries, sports utilities and foods.

In accordance with the planning for accurate poverty-alleviation work, subsidiaries of the Company devoted to poverty-alleviation work actively. In 2016, Shanghai Branch of COSCO Shipping Lines invested RMB15,600 to sponsor six poverty-stricken students in the education-aid program. Ningbo Branch invested RMB1,800 to sponsor 18 poverty-stricken students.

2) Carrying forward international humanism spirits

Tengyunhe Liner set off at 20:00 on Sept. 16, 2016 for voyage 278S from Lianyungang to Kaohsiung. At 15:30 on Sept. 17, it received the requirements of Lianyungang RCC, a ship was lost at 18:00 on Sept. 16 and required the liner to help in search and rescue. Tengyunhe Liner conducted search and rescue in accordance with request of Lianyungang RCC, and completed the task successfully at 18:40.

COSCO Piraeus received call of USCG 17:08 of local time, requesting the liner to rescue four persons about 4 sea miles away. At 17:45, three Mexican fishers got on board. They were all healthy and had no injuries.

Part IX Contribution For The Society

9.2.2 Anti-corruption

In 2016, the Company insisted on strengthening occupational education and anti-corruption cultural building in accordance with higher standards and stricter disciplines, and developed a loyal, clean and responsive disciplinary inspection and supervision team.

COSCO Shipping Lines enhanced anti-corruption cultural building, enriched educational forms and contents constantly, and enabled all leaders to be aware of related disciplines. In 2016, over 800 persons attended the symposiums at different levels. Anti-corruption education month was carried out, with 9,730 attended the studying activities, 6,000 persons attended the quiz activities, while 180 drawings themed on anti-corruption were collected. Moreover, a total of 16 anti-corruption with all levels of leaders, 14 special lectures, 18 visits to anti-corruption education bases, watch of 29 anti-corruption educational videos, further enhance their anti-corruption awareness.

COSCO Shipping Lines conducted 250 audit items, as well as audit on ship reparation fee of 1,752 times and the dock reparation fee of eight times. The audit promoted the revenue increase and expenditure reduction by 32.5263 million. It cleared 12 significant issues found in annual audit work, and propelled functional departments of related units to conduct rectification.

In 2016, there were no bribery-related lawsuits against the company or its employees.

9.2.3 Commercial law-compliance

Honesty and law-compliance are basic requirements for business operation. The Company insisted on the center of customers and partners, the tenet of serving for customers and partners, continuously promoted business mode innovation, performed economic and social responsibilities carefully while providing better, higher-efficient and more convenient services for customers, followed market rules, practiced commercial ethics and constructed an environment-friendly enterprise.

As a globally-leading shipping company, the Company followed related rules and regulations such as the Anti-unfair Competition Law and the Interim Rules on Prohibition of commercial Bribery, advocated fair competition, and opposed market monopolization and unfair competition behaviors. It collected and appraised related international and domestic anti-monopolization and anti-unfair competition laws and regulations on regular basis, and formulated the systems to main free and fair market competition order based on these requirements.

It required the headquarters, domestic and overseas subsidiaries and joint ventures to abide by the principles of honesty and fairness, as well as anti-monopolization rules and regulations of related countries, not to affect others' fair competition through illegal ways, damage reputation of rivals, and not to infringe commercial secrets and IPR of rivals, and protect the rights and interests of cargo-owners and stakeholders.

By including the anti-commercial bribery and IPR protection rules and regulations in commercial contracts, it changed the prohibition on commercial bribery and IPR protection from traditional self-discipline into obligations of both parties, elevating the anti-corruption awareness of related persons and effectively ensuring law-compliance of commercial trades.

In 2016, the Company received no penalties for IPR infringement or commercial bribery, no any lawsuits due to bribery, extortion, fraud or money-laundering behaviors.

Part X Realizing Value For Customers

10.1 Management approaches

As a high-investment, high-risk, capital-intensive and professional service industry, the Company paid close attention to safety in service process and service quality, and undertook its due responsibilities in entire life cycle of products and the whole service-providing process. In response to service characteristics of shipping enterprise and port enterprise, it set up Risk Management Committee and Safety Production Committee to realize effective operation and control of the Company in quality management, environmental management, occupational health management and social responsibility management processes. It insisted on the principle of “taking prevention as the top priority and combining preventative and fighting measures”, established all-rounded safety production responsibly system, strictly implemented various safety management systems, played the effective role of safety management system in practical, formulated and implemented various preventative measures, and ensure safety operation of ships.

The Company paid close attention to rights and rights of customers as well as their safety and healthy, insisted on honest operation in its business operation, respected and protected rights and privacy of customers, joined hands to establish honest and legal production and consumption environment, and elevated customer satisfaction constantly. In the meantime, it established complete supply chain management system, took the supply chain building and management as an important way to elevate the competitiveness, and promoted development of the industry while elevating competitiveness of the Company.

10.2 Performance indicators

10.2.1 Coping with market change and providing high-quality services

The Company has been dedicated to all-directional improvement and innovation of products and services, adjusted shipping line arrangement and products actively, and tried to satisfy the fast-changing demands of the market and the customers. Container fleet of the Company operates 312 ships, with the carrying capacity of 1,648,790 TEUs. It operates 205 international shipping lines (including international regional lines), 38 shipping lines in coastal area of China and 86 Pearl River Delta and Yangtze Region regional lines. Shipping lines of the Company called 254 ports in 79 countries, and have strong strength in Europe, America, Middle East, Australia and Asia. It continuously optimized global regional shipping lines, improved the network arrangement, enhanced the development of regional lines in central and south America, optimized shipping line network in Southeast Asia and adjusted shipping line in North Africa.

In 2016, it constantly provided satisfactory products and services for products through continuous optimization of carrying capacity structure, enhancement of carrying capacity management, elevation of energy efficiency and collaboration ability of fleets.

Part X Realizing Value For Customers

10.2.2 Enhancing safety management and ensuring properties of customers

In 2016, the Company enhanced implementation of responsibilities, improved management system, segmented working tasks, increased the capital investment for safety production, carried out and enhanced the inspection and removal of potential safety risks, steadily promoted various safety work with a focus on the central task of “safety production and stable development”, ensured stable and favorable development of safety production situation and laid solid foundation for its safe and sustainable development.

The Company signed the letter of responsibility for safety production with affiliated companies, governmental organs and units, issued the Outlines for Safety Production Work in 2016, and fulfilled its responsibility for safety production of the enterprise. COSCO Shipping Lines completed 14 safety inspections of shore-based units, and 27 safety inspections of ship units, finding 27 defects and 239 defects respectively. COSCO Shipping Ports organized 372 times of self-inspections of potential safety risks, with 523 potential safety risks found. So far, all aforesaid defects had been rectified, with the rectification rate reached 100%. COSCO Shipping Lines enhanced three-level safety education for 111 graduates majored in maritime industry. COSCO Shipping Ports enhanced training on on-site operators, and ensured that all safety management persons have the certificates. The Company also carried out special safety activities for anti-typhoon and anti-flood work, transportation of dangerous goods, anti-pirate and safety guard, implementing the safety measures in practical.

In 2016, the Company had no safety production accidents above general level.

10.2.3 Enhancing service awareness and elevating customer satisfaction

In 2016, the Company continued to deepen the existing customer relation management system, integrated and improved related systems and procedures for customer relation management, enhanced investigation on customer demands, service improvement, improvement of communication channels, disposal of suggestions and complaints, and customer-visiting work, helping to surpassing demands of customers and ensure timely disposal of customers' suggestions and complaints on quality, environmental and occupational health management issues.

COSCO Shipping Lines formulated and improved a series of customer service-related processes and standards, such as Standard Service Guiding Framework, Framework for the Guidebook on Customer Service, Guiding Processes for Integration of Cabin Booking Channels during Transition Period, Notifying Process of Significant Service Information, Order Changing Operation Process and Customer Service Hotline Valuation Methods, and ensured orderly customer service work through standardized customer service contents and standards. The Company opened customer compliant hotline to accept the complaints from cargo-owners, agencies or consigners. In 2016, a total of 22 complaints were accepted, with the disposal rate reached 100%. The Company collected opinions and suggestions from the customers through service quality sampling inspection and customer satisfaction index survey, accepted the supervision of internal and external customers and the public, found insufficiencies in its services as well as improvement opportunities, and promoted the elevation of service quality and level.

Part X Realizing Value For Customers

In 2016, Nansha Terminal of COSCO Shipping Ports entrusted a third party company to conduct a customer satisfaction survey, and got 80.26 points, 1.84 points higher than the previous year. Compared with previous surveys, this year's survey features wide coverage, including ship companies, barge companies, ship agencies, logistical companies and direct customers, and was conducted from different indicators, such as operation and service, bill and settlement, port and shore environment, so as to know satisfaction of different customers to different items, listen to real demands of them, and provide valuable reference for continuously improvement of work and satisfaction of customers' requirements.

Historical data of customer satisfaction index of COSCO Shipping Lines:

2016	2015	2014	2013	2012
83.33	84.00	84.25	84.27	83.95

Historical data of six blocks of customer satisfaction index of COSCO Shipping Lines

Items	2016		2015		2014		2013	
	Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking
Quality expectation	81.86	4	83.01	4	82.92	4	83.01	4
Quality recognition	84.31	2	86.05	2	86.56	2	86.58	2
Value recognition	74.3	5	78.68	5	79.89	5	78.86	5
Satisfaction degree	83.33	3	84	3	84.25	3	84.27	3
Complains of customers	61.64	6	65.97	6	64.97	6	58.14	6
Loyalty	90.44	1	88.38	1	89.12	1	90.12	1

10.2.4 Practicing honest operation and respecting privacy of customers

The Company tried to provide high-quality shipping and logistical services for global customers, and strictly control the quality for cargo shipping through lean management. In order to enable the customers to get information of products and services selected in a timely, accurate and effective manner, the subsidiaries released information such as voyage schedule, shipping line, dynamic information of ship, ship technology, freight rate, cabin-booking and sales management-related information to cargo owners or the public through text, e-commerce platform, newspaper and magazine, so as to help customers to know related information.

In 2016, the Company received no warnings or fines for violating laws, regulations and voluntary rules about product and service information and logo.

Part X Realizing Value For Customers

The Company insisted on the marketing strategies of “market orientation and centering on customer satisfaction”, respected the principle of voluntariness, followed international and national laws, rules and regulations in marketing and promoting activities such as advertisement, sales promotion and sponsorship of dealers, strictly implemented internal audit mechanism, avoided misleading customers with false or unfaithful information, and tried to protect reputation of the Company as well as loyalty and satisfaction of customers. The Company set up a special market promotion team, implemented sales director system, and standardized the promotion of service products of the Company. It also organized systematic and strict trainings to ensure that market promotion personnel of the company could abide by related rules and regulations.

In 2016, the Company didn’t faced sales restriction or sale of disputable products in market promotion process, nor received any warnings, fines or violated the rules on voluntariness.

Customer privacy protection is an important part for customer relations management, and also an important sector for service of the company. Global sales department of the Company is responsible for establishment and inspection of customer privacy-related systems, as well as management of customer information. It made constant efforts to improve customer privacy protection work to prevent against loss or illegal use of customer information. The Company signed confidentiality agreements with customers, promising to keep confidentiality for contents of the contract such as terms and conditions and freight rate. When customer information is needed, the Company will elaborate the reasons and purpose. The Company promised not to share customer information with others except its employees, agencies authorized by the customers, partners or its subsidiaries, nor disclose or sell information of customers or potential customers.

In 2016, the Company received no complains for infringement of customer privacy.

The Company has been dedicated to providing convenient, high-efficient and high-quality services for customers and consumers, and strictly followed the laws, rules and regulations when providing products and services. It formulated rules and regulations regarding product liabilities, which were brought to the letter of responsibility for safety production. The Company specially set up business and law departments to conduct law-compliance evaluation on products and services, found insufficiencies timely, took measures to make improvement, and ensured that its production, operation, product & service realization and marketing processes comply with related laws, rules and regulations.

In 2016, the Company didn’t violate related laws, rules and regulations, nor received any fines due to product and service liability.

Part X Realizing Value For Customers

10.2.5 Awards and honors

In 2016, the Company received wide recognition and good comments from the market for its law-compliant operation, stable development as well as co-existence and win-win cooperation with stakeholders. Some awards and honors received by COSCO Shipping Lines and COSCO Shipping Ports are as follows:

- (1) “World’s Top 10 Container Carriers for Customer Satisfaction” by China Shipping Gazette;
- (2) “2016 Special Award for Best Ship-owner Integration” by the Port Operators;
- (3) “2016 Best Australia-Northeast Asia Shipping Line” by Lloyd’s List Australian;
- (4) 2016 SAIC-GM Excellent Contribution Award;
- (5) Quest for Quality Award by Logistics Management;
- (6) 2015 Advanced Unit in Construction of Healthy City of Shanghai;
- (7) COSCO Shanghai awarded the 2015 Advanced Collective in Shanghai for Maritime Search and Rescue;
- (8) China Outstanding Enterprise Achievements Award by Capital Magazine for five successive years;
- (9) Best Enterprise for Investors Relations issued by Asian Corporate Governance for five successive years;
- (10) Best Legal Team for Shipping Enterprises awarded by Asian Legal Business for four successive years;
- (11) “Golden Award for Corporate Governance, Environmental Responsibility and Investors Relationships” awarded by Financial Information;
- (12) Top 10 Most Innovation Legal Team for Enterprise by Financial Times.

Appendix 1: GRI G4 Index Table

Serial No. of G4	Requirements of GRI G4	Chapter/ Reasons for not disclosing
	Strategy and analysis	Chapter I
G4-1	Statement of the supreme decision-maker (CEO, chairman or similar post) on relevant of sustainability with the institution and the sustainability strategies	1.0
	Background information	Chapter II
G4-3	Name of institution	2.1.2
G4-4	Main brands, products and services	2.2.1
G4-5	Position of headquarters	2.1.2
G4-6	How many countries does the institution operate in? Where are the main businesses, and what countries are specially related to sustainability theme of the report	2.2.1
G4-7	Nature of ownership and legal form	2.1.2
G4-8	Markets served for (including regional segments, industries service, and type of clients/beneficiaries)	2.2.1
G4-9	Size of the institution, including number of employees, number of outlets, net sales revenue (applicable to privately-run institution) or net income (applicable to public institution), total market value by debts and equities (applicable to privately-run institution), number of products or services provided	2.2.2
G4-10	a. Number of employees by labor contracts and gender	7.2.1
	b. Number of fixed employees by employment type and gender	7.2.1
	c. Number of employees by formal employee, informal employee and gender	7.2.1
	d. Number of employees by region and gender	7.2.1
	e. Whether most of the work of the institution is done by self-employed persons in terms of laws, or done by non-employees or informal employees (including employees and informal employees of sub-contractors)	7.2.1
	f. Significant change of persons employed (for instance, seasonal change of employees of tourism or agricultural industries)	7.2.1
G4-11	Percentage of employees covered in collective negotiation	7.2.1
G4-12	Supply chain situation of the institution	2.3
G4-13	Important changes of size, structure, ownership or supply chain of the institution in the reporting period	2.2.3
G4-14	Whether and how will the institution behave in accordance with pre-warning guidelines and principles	2.4
G4-15	Economical, environmental and social conventions, principles or other appeals participated or supported by the institution	2.5
G4-16	Associations (such as industrial associations) and national or international institutions joined by the institution	2.6

Appendix 1: GRI G4 Index Table

Serial No. of G4	Requirements of GRI G4	Chapter/ Reasons for not disclosing
	Identification of substantial topics and border	Chapter III
G4-17	All entities covered in consolidated financial reports or similar documents of the institution	3.2.1
	Whether the entities covered in the consolidated financial reports or similar documents are not covered in the sustainability report	3.2.1
G4-18	Process to determine contents and borders of the report	3.2.2
	How the “identification of reporting contents and principles” is realized?	3.2.2
G4-19	All substantial topics selected when determining contents of the report	3.2.2
G4-20	Border of internal aspects of the institution for each substantial topic	3.2.2
G4-21	Border of external aspects of the institution for each substantial topic	3.2.2
G4-22	Impact of revision to information in previous report and revision principles	3.2.3
G4-23	Significant changes of scope and borders compared with previous reports	3.2.3
	Participation of stakeholders	Chapter II
G4-24	List of stakeholders of the institution	2.7.1
G4-25	Identification and selection bases for stakeholders selected	2.7.1
G4-26	Way for participation of stakeholders	2.7.1
G4-27	Key topics and concerns during participation of stakeholders, responding methods of the institution, including responding with report	2.7.1
	Background of report	Chapter III
G4-28	Reporting information of information provided (financial year or calendar year)	3.1
G4-29	Date of previous report (if applicable)	3.1
G4-30	Reporting period (for instance, once a year, once for every two years)	3.1
G4-31	Contact person of the report or reporting contents	3.1
G4-32	a. “Complying” plans for selection of institutions (core or comprehensive)	3.1
	b. GRI index for plans selected	Appendix 1
	c. If the report passes external assurance, please cite the external assurance report	3.1
G4-33	a. Policies and methods to seek for external assurance of the report	3.1
	b. If it is not listed in assurance report attached to the sustainability report, scope and bases of external assurance provided shall specify	3.1
	c. Relations between reporting institution and the assurance service provider	3.1
	d. Whether the supreme governance organ or senior managers attend the assurance of sustainability report	3.1

Appendix 1: GRI G4 Index Table

Serial No. of G4	Requirements of GRI G4	Chapter/ Reasons for not disclosing
	Governance	Chapter IV
G4-34	Governance structure, including committees under supreme governance organ	4.1, 4.2
G4-36	Whether administrative-level senior manager is appointed to be responsible for economical, environmental and social topics, and whether the senior manager reports to the supreme governance organ directly	4.4
G4-39	Whether chairman of the supreme governance organ assumes administrative post	4.2.2
	Ethnics and honesty	4.5
G4-56	Value concept, principle, standards and code of behaviors of the institution, such as behavioral code and ethical code	4.5
G4-58	Internal and external mechanism for reporting unethical or illegal behaviors, affairs related to honesty of the institution, for instance, level-by-level report through direct managers, complaining mechanism or hotline	9.1
	Substantial topics	Chapter III
G4-DMA	a. Why the topic has substantial meaning	3.2.2
	b. How to manage the substantial meaning and its influence	3.2.2
	c. Evaluation of management approaches	3.2.2
	Economic indicators	Chapter V
	Economic management approach DMA	5.1
G4-EC1	Direct economic value generated and distributed	5.2.1
G4-EC2	Financial impact, risk and opportunities brought by climate change to the institution	5.2.2

Appendix 1: GRI G4 Index Table

Serial No. of G4	Requirements of GRI G4	Chapter/ Reasons for not disclosing
	Environmental indicators	Chapter VI
	Environmental management approach DMA	6.1
G4-EN1	Weight or volume of materials used	N/A
G4-EN3	Energy consumption of the institution	6.2.1
G4-EN5	Energy intensity	6.2.1
G4-EN6	Reduction of energy consumption	6.2.1
G4-EN7	Reduction of energies needed by products and services	6.2.1
G4-EN8	Total water consumption by source	6.2.2
G4-EN9	Water source greatly impacted due to water usage	6.2.2
G4-EN10	Percentage and volume of recycled or reutilized water	6.2.2
G4-EN15	Direct greenhouse gas emission	6.2.3
G4-EN16	Indirect greenhouse gas emission of energies	6.2.3
G4-EN18	Greenhouse gas emission intensity	6.2.3
G4-EN19	Greenhouse gas emission reduced	6.2.3
G4-EN21	Emission of NOx, Sox and other main gases	6.2.3
G4-EN22	Total sewage pollution by water quality and discharge destinations	6.2.4
G4-EN23	Total weight of wastes by category and disposal methods	6.2.4
G4-EN24	Total number and volume of serious leakage	6.2.4
G4-EN27	Reduction degree of impacts on products and services	6.2.4
G4-EN29	Amount of fines received for violating environmental laws and regulations, and number of non-economic penalties received	6.2.4

Appendix 1: GRI G4 Index Table

Serial No. of G4	Requirements of GRI G4	Chapter/ Reasons for not disclosing
	Labor indicators	Chapter VII
	Labor management approach DMA	7.1
G4-LA1	Total number and proportion of new employees and resigned employees by age, gender and region	7.2.1
G4-LA6	Proportion of type of work-related injuries, work-related injuries, occupational diseases, work delay and absence and number of work-related deaths	7.2.2
G4-LA9	Annual average training hours of each employee by gender and type of employees	7.2.3
	Human right indicators DMA	Chapter VIII
	Human right management approach DMA	8.1
G4-HR5	Outlets and suppliers with great risks for use of child labors and measures to prohibit use of child labors	8.2.3
G4-HR6	Outlets and suppliers with great risks for use of forced labors and measures to prohibit any form of use of forced or compulsive labors	8.2.4
	Social indicators DMA	Chapter IX
	Social management approach DMA	9.1
G4-SO1	Proportion of outlets implementing participation of local community, influence evaluation and development plans	9.2.1
G4-SO4	Delivery and training of anti-corruption policies and procedures	9.2.2
G4-SO5	Corruptive events confirmed and actions took	9.2.2
G4-SO8	Amount of fines received for violating laws and regulations, and number of non-economic penalties received	9.2.3
	Product indicators	Chapter X
	Product and service management indicators DMA	10.1
G4-PR1	Proportion of important products and service types accepting evaluation on health and safety impacts, so as to improve existing situations	10.2.2
G4-PR2	Number of events for violating related laws and regulations and voluntary rules on health and safety of products and services by type of outcomes	10.2.2
G4-PR4	Number of events for violating related laws and regulations and voluntary rules on information and logo of products and services by type of outcomes	10.2.4
G4-PR5	Outcome of customer satisfaction survey	10.2.3
G4-PR6	Sale prohibition or sale of disputable products	N/A
G4-PR8	Number of proved complaints on violation of customer privacy and loss of customer information	10.2.4
G4-PR9	Total amount of fines for violating related laws and regulations on provision and use of products and services	10.2.4

Appendix 2: ESG Index Table

A. Environment

Level A1: Emission		Chapter/ Reasons for not disclosing
A1-General disclosure	General disclosure	6.1
	Following contents about waste gas and greenhouse gas emission, emission to water and land, generation of hazardous and non-hazardous wastes:	6.2.3, 6.2.4
	(a) Policies; and	
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
	Notes: Waste gas emission includes NO _x , Sox and other pollutants regulated by related laws and regulations. Greenhouse gas includes CO ₂ , etc. Hazardous waste refers to those defined in national rules and regulations.	
A1.1	Type of emissions and related data.	6.2.3
A1.2	Total greenhouse gas emission (by tons) and (if applicable) density (per production unit or per facility).	6.2.3
A1.3	Total volume (calculated by ton) and density (if applicable, such as calculated by each production unit or facility) of hazardous waste generated	6.2.4
A1.4	Total volume (calculated by ton) and density (if applicable, such as calculated by each production unit or facility) of non-hazardous waste generated	6.2.4
A1.5	Emission reduction measures and outcomes	6.2.1
A1.6	Disposal methods of hazardous and non-hazardous wastes, measures to reduce production volume and outcomes	6.2.4
Level A2: Resource utilization		
A2- General disclosure	General disclosure	6.2.1
	Policies on effective use of resources (including energy, water and other raw materials).	6.2.1, 6.2.2
	Notes: Resources can be used for production, storage, transportation, building, electric devices, etc.	
A2.1	Direct and/or indirect energy (electricity, gas or oil) consumption volume (calculated by 1,000hwh) or density (calculated by each production unit and facility) by type	6.2.1
A2.2	Total water consumption and density (calculated by each production unit and facility)	6.2.2
A2.3	Description of plans for energy utilization benefits and outcomes	6.2.1
A2.4	Description of issues in getting applicable water resources, and plans to elevate water benefit and outcomes gained.	6.2.2
A2.5	Total volume (calculated by ton) and utilization volume per production unit (if applicable) of packaging materials used by finished products	N/A (The Company has no concrete products, and therefore doesn't use any packaging materials)

Appendix 2: ESG Index Table

Level A3: Environment and natural resources

A3- General disclosure	General disclosure	
	Policies to lower the significant impacts of issuers on environment and natural resources.	6.2.2
A3.1	Description of significant impacts of business activities on environment and natural resources and actions taken to manage related influences	6.2.3

B. Community

Employment and labor rules

Level B1: Employment

B1- General disclosure	General disclosure	7.1, 7.2.1, 8.1, 8.2.1
	Following contents about salaries and removal, recruitment and promotion, working hours, holiday, equal opportunities, diversification, anti-discrimination and other treatments and welfare:	7.2.1
	(a) Policies; and	
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
B1.1	Number of employees by gender, employment type, age and region	7.2.1
B1.2	Staff turnover rate by gender, age and region	7.2.1

Level B2: Health and safety

B2- General disclosure	General disclosure	7.2.2
	Following contents about provision of safe working environment and ensuring employees from occupational harms:	
	(a) Policies; and	
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
B2.1	Number and proportion of work-related deaths	7.2.2
B2.2	Working days lost due to work-related injuries	7.2.2
B2.3	Description of occupational health and safety measures adopted as well as related implementation and supervision methods.	7.2.2

Level B3: Development and training

B3- General disclosure	General disclosure	7.2.3
	Policies to elevate the knowledge and skills of employees to perform their duties. Description of training activities.	
	Note: Training refers to occupation training, and includes internal and external classes paid by the employers.	
B3.1	Percentage of employees trained by gender and type of employees (such as senior management, middle management, etc.)	7.2.3
B3.2	Average training hours completed by each employee by gender and type of employees	7.2.3

Appendix 2: ESG Index Table

Level B4: Labor rules

B4- General disclosure	General disclosure	8.1
	Following contents about prohibition of child labor or forced labor:	
	(a) Policies; and	
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
B4.1	Description of measures to check employment rules to avoid child labor and forced labor	8.2.3, 8.2.4
B4.2	Description of steps to eliminate related situations when finding violations of rules and regulations	8.2.5

Operating traditions

Level B5: Supply chain management

B5- General disclosure	General disclosure	2.3
	Policies to manage the environmental and social risks of the supply chain.	
B5.1	Number of suppliers by regions.	2.3
B5.2	Description of rules about management of suppliers, number of suppliers implementing related rules, implementation and supervision of related rules	2.3

Level B6: Product liability

B6- General disclosure	General disclosure	10.1
	Following contents about health & safety, advertisement, label and privacy of products and services provided and remedies:	
	(a) Policies; and	
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
B6.1	Percentage of products sold or delivered that need to be recalled due to safety and health reasons	N/A (The Company has no concrete products)
B6.2	Number of complaints about products and services, and countermeasures	10.2.3
B6.3	Description of traditions for maintenance and protection of intellectual property rights	10.2.4
B6.4	Description of quality inspection processes and product recall procedures	N/A (The Company has no concrete products)
B6.5	Description of consumer data guarantee and privacy protection policies, as well as related implementation and supervision methods	10.2.4

Appendix 2: ESG Index Table

Level B7: Anti-corruption

B7- General disclosure	General disclosure	9.1
	Following contents about prevention against bribery, extortion, fraud and money-laundering:	9.2.2
	(a) Policies; and	9.2.3
	(b) Materials for abiding by related laws and regulations with great impacts on the issuers;	
B7.1	Number of bribery lawsuits against the issuer or its employee settled within the reporting period, and results of the lawsuits	9.2.2 9.2.3
B7.2	Description of preventative measures and reporting procedures, as well as related implementation and supervision methods	9.1

Level B8: Input to the communities

B8- General disclosure	General disclosure	9.2.1
	Policies to know demands of communities where it operate through community participation and to ensure that the business activities will consider rights and interests of the community	
B8.1	Contribution scope, such as education, environment, labor demands, health, culture and sports.	9.2.1
B8.2	Resources used in the contribution scope, such as money or time.	9.2.1



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