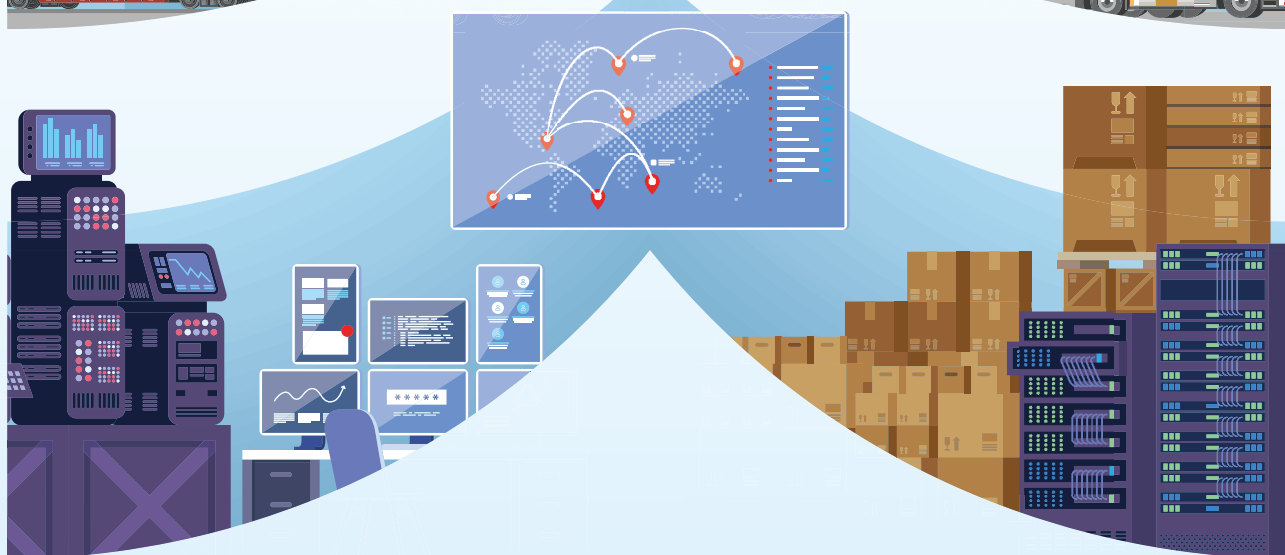


 **天津港發展控股有限公司**
Tianjin Port Development Holdings Limited

(Incorporated in the Cayman Islands with limited liability)

Stock Code: 03382



ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

2022

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ABOUT THIS REPORT

This is the seventh Environmental, Social and Governance Report of Tianjin Port Development Holdings Limited (together with its subsidiaries, the “Group” or “we”), presenting the Group’s management approach and performance in environmental, social and governance (“ESG”) aspects. The report expected to deepen stakeholders’ understanding of the Group’s sustainable development strategies and actions.

The Board acknowledges its responsibility for ensuring the integrity of this report. To the best of its knowledge, this report objectively discloses the Group’s actions and performance on material topics. The Board has reviewed and approved this report and confirms its accuracy, truthfulness and completeness of contents.



ABOUT THIS REPORT

REPORTING GUIDELINES AND PRINCIPLES

This report is prepared in compliance with the Environmental, Social and Governance Reporting Guide (the “ESG Reporting Guide”) set out in Appendix 27 to the Rules Governing the Listing of Securities (the “Listing Rules”) on The Stock Exchange of Hong Kong Limited (the “HKEX”) and introduces the Sustainable Development Goals (“SDGs”) as appropriate in the process of improving the management of material topics.

This report has complied with the “comply or explain” provisions set out in the ESG Reporting Guide on the basis of the reporting principles of “Materiality”, “Quantitative”, “Balance” and “Consistency”. In the preparation of this report, the specific practices are as follows:

Materiality:	Quantitative:	Balance:	Consistency:
<ul style="list-style-type: none"> The Group undertakes stakeholder engagement and materiality assessment through online questionnaires to identify material ESG issues and ensure that stakeholders’ concerns are addressed in this report. 	<ul style="list-style-type: none"> The data presented in this report has been verified and reviewed to illustrate the year-on-year changes. Please refer to the “Performance Data Summary” of this report for the standards, methods, assumptions and calculation tools used to calculate the quantitative key performance indicators (“KPIs”) for the year. 	<ul style="list-style-type: none"> In the preparation of this report, the Group illustrates its performance in various aspects of sustainable development in a fair and transparent manner. 	<ul style="list-style-type: none"> Unless otherwise stated, the statistical methods and criteria in this report are consistent with those in the past. Quantitative data is presented in a manner consistent with year-on-year comparisons after analysis for stakeholders’ review.

REPORTING SCOPE

This report discloses the Group’s actions and performance on material environmental and social issues for the period from 1 January 2022 to 31 December 2022. Unless otherwise stated, the scope of this report covers all major group’s subsidiaries associates and joint ventures. For corporate governance section, please refer to pages 24 to 39 of the Annual Report.

FEEDBACK

Your comments on this Report or the Group’s sustainability management will help the Group to continue its sustainability efforts. If you have any comments or suggestions, please contact the Group.

Tianjin Port Development Holdings Limited

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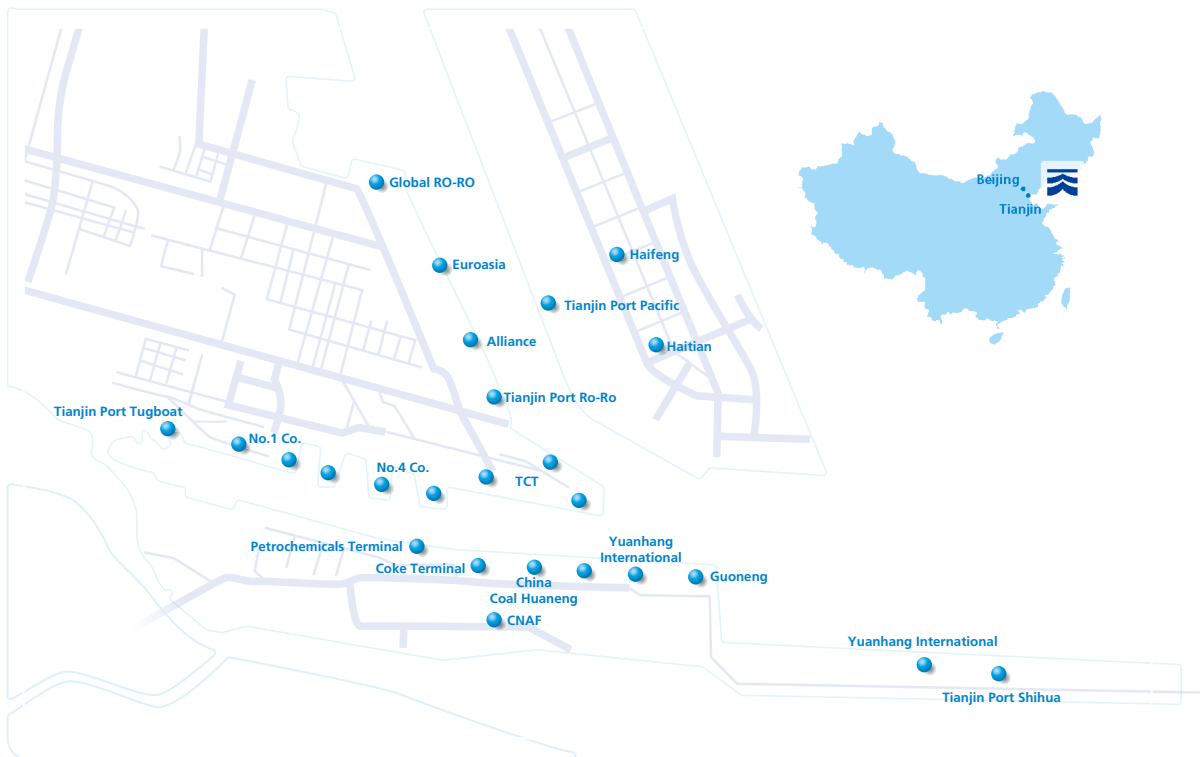
ABOUT THE GROUP

GROUP PROFILE

The Group first operated as a non-containerised cargo terminal at the port of Tianjin in 1968 and expanded into container handling business in 1980. In early 2010, the Group completed the acquisition of 56.81% equity interest in Tianjin Port Holdings Co., Ltd (“Tianjin Port Co”).

Today, the Group is the leading port operator at the port of Tianjin and is principally engaged in container and non-containerised cargo handling businesses, sales business and port ancillary services business. Currently, the Group has advanced container terminals, specialised terminals capable of handling coke, coal, ore, Ro-Ro, and a 300,000-tonne crude oil terminal.

The port of Tianjin, located at the juncture of the Beijing-Tianjin city belt and the economic circle of the Bohai Rim Region, is an important strategic resource for the country, a maritime gateway for the Beijing-Tianjin-Hebei and “Three North”¹ area and an international hub serving the country’s all-round opening up. It is the largest comprehensive port and an important foreign trade port in North China, serving 14 provinces, cities and autonomous regions and a hub connecting Northeast Asia with Midwest Asia. In 2022, the port of Tianjin was the eighth largest port in terms of cargo throughput and ranked the sixth in terms of total container throughput.



¹ Three North refers to the provinces, autonomous regions and municipalities in North China, Northeast China and Northwest China.

ABOUT THE GROUP

SUMMARY OF KEY KPIS OF THE YEAR

Staff training and development

Proportion of employees trained	100%
Total hours of employee training	158,594 hours
Average training hours per employee	26 hours

Employee diversity

52.2% of employees are under the age of 45

Occupational Safety and Health Training

The total number of safety training	147,763
Total hours of safety training	9,212 hours

Use of shore power:

As of 31 December 2022, the shore power supply coverage of the self-owned vessels owned by the Group's major subordinate units was 100%.

Self-owned vessels (ships): connecting power supply of 1,257,000 kWh

Non-self-owned vessels: connecting vessels 357 times, with power supply of 3,996,000 kWh.

Promote the use of low-sulfur oil for vessels berthing at port:

The Group's subordinate units ensured that marine light diesel oil with sulfur content less than 0.5% is used in all vessels to reduce air pollutant emissions from vessels.

Environmental Commitment

The total GHG emissions were 267,642 tonnes of carbon dioxide equivalent, a decrease of 36% compared with 2021

Water consumption intensity: 0.213 tonnes/per thousand HKD

Energy consumption intensity: 0.178 GJ/per thousand HKD

100% of sewage generated in the area is treated by the sewage treatment plant

100% household waste sorting coverage

The total greening area of the port area reached 716,000 square meters, with a total investment of RMB6,676,800.





CHAIRMAN'S STATEMENT

The Group has profoundly grasped the global economic trends, assumed responsibility in the new development pattern and seized opportunities in the integration of port, industry and city. We continued to focus on our main business, accelerated the development of our resource layout and technical reserves, continuously strengthened our awareness of smart operation, enhanced our basic management level and actively fulfilled our corporate social responsibility. During the year, the Group continued to push forward the development of a smart and green port and invest resources to promote sustainable development. Through this Environmental, Social and Governance (“ESG”) Report, we present to our stakeholders the Group’s progress in sustainable development in the past year.

The Group deeply implemented its innovation-driven development strategy and strived to build a world-class smart port. The Company continued to make efforts in building up intelligent infrastructure, intelligent production and operation, as well as digitalising our operations and management. We have actively utilized various modern information technologies such as IoT (Internet of Things), artificial intelligence, 5G communication and cloud computing to deeply integrate with port production. Based on the needs for automated and intelligent upgrading of traditional container terminals in the world, the Group has boldly explored the integration and innovation of traditional processes and modern information technology, and actively explored the large-scale application of autonomous driving technologies such as unmanned electrical container trucks and Artificial Intelligence Robot of Transportation robots (ART).

At the same time, the Group has firmly implemented the national “dual carbon” strategic requirements, with focus on the goals of “carbon peak” and “carbon neutrality”, and made every effort to build an intrinsically safe and green development model. We have focused on the development of clean energy utilisation, green and low-carbon transportation and green energy protection, and strived to build a world-class green port which is “people-oriented, safe, and healthy as well as environmentally friendly”. We continued to promote the construction of a two-way green port in land and sea, and embarked on a high-quality development path with ecological priority and green development. The Company has made every effort to build a dual demonstration port of “road-to-rail and bulk-to-container” and has achieved 100% railway transportation of coal. In terms of the proportion of clean ore transportation, we are also at the forefront of the ports throughout the country and have ensured the “green transportation” of port cargo.

Safety has always been the primary objective of the Group’s production and operation. We have thoroughly deployed the safety production requirements. With the implementation of the “1661” safety and environmental protection management system (led by 1 safety culture, supported by 6 management systems, safeguarded by 6 assessment systems and 1 incentive system) and the intrinsic safety management system as the starting point, we have coordinated corporate development and safety responsibilities through the measures such as SOP work method, “grid-based”, “visualization” and UAV cruise to continuously build a safety barrier for the Group’s high-quality development.

Looking ahead to 2023, we will continue to strive to build a world-class smart and green hub port as our mission, seize the opportunities arising from the new round of energy structure adjustment and technological reform, keep making continuous progress in the build-up of smart infrastructure, production and operational management, so as to create more benchmark results of smart and green hub port through value creation. I would like to take this opportunity to express my sincere gratitude to all our employees, partners, shareholders and directors for their support and dedication to the Group!

Chairman

CHU Bin

Hong Kong, March 28, 2023

SUSTAINABLE DEVELOPMENT MANAGEMENT

BOARD STATEMENT

As a major port operator at the port of Tianjin, the Group adheres to the core values of “people focused, quality first and customer oriented”, and continues to refine and perfect the concept of sustainable development in its daily management and operation. With five sustainable development principles of “Environmental Commitment”, “People Focused”, “Quality First”, “Customer Oriented” and “Community Care”, the Group actively promotes the construction of a green port, creates a comfortable and diverse working environment, strengthens the talents nurturing and team building, and is committed to creating long-term value for the Group, the society and the environment. Meanwhile, in response to the United Nations’ call, we actively continue to explore the application and development of the Sustainable Development Goals (“SDGs²”) in operational management, and promote the exploration of sustainable development.

ESG GOVERNANCE

The Board attaches great importance to the sustainable development of the Group and has a [sound governance structure](#), which is responsible for making decisions, reviewing and considering ESG strategies, policies, systems and indicators, and monitoring the implementation of plans. The Board reviews all risks of the Group through the Audit Committee, including ESG risks. The Board has authorized the Environmental, Social and Governance Working Committee (the “ESG Working Committee”) to support the Board in managing ESG matters and supervising the implementation of ESG-related systems by various functional departments. The Group has also formulated relevant management measures to clearly define the authority and responsibilities of the Board, the Audit Committee and the ESG Working Committee.

The Group has established a complete and mature ESG management mechanism and risk management and control system. On this basis, the Group has clarified the multi-level management system, management policy and related objectives and indicators for the port cargo handlings, logistics and related services, operational emissions and employee occupational health and safety, ensured the supply of manpower and resources required for the operation of the management system and continuously improve the sustainable development.

Currently, the Group and its subsidiaries and affiliates³ have obtained GB/T 19001, GB/T 24001, GB/T 23331, GB/T 45001 certifications and the International Convention on the Safety of Life at Sea (SOLAS) for quality management, environmental management, energy management and occupational health and safety management systems, respectively.

During the Reporting Year, the Group held a meeting of the ESG Working Committee to comprehensively sort out and summarize the ESG work for the whole year, and subsequently reported the outcome to the Board.

² All members of the United Nations adopted the Sustainable Development Goals (SDGs) in 2015 to eliminate poverty and reduce inequality. SDGs has also become a global goal, calling on everyone to take action to create a sustainable world.

³ Subsidiaries and affiliates refer to the Group’s subsidiaries, associates and joint ventures.



SUSTAINABLE DEVELOPMENT MANAGEMENT

STAKEHOLDER ENGAGEMENT AND IDENTIFICATION OF MATERIAL TOPICS

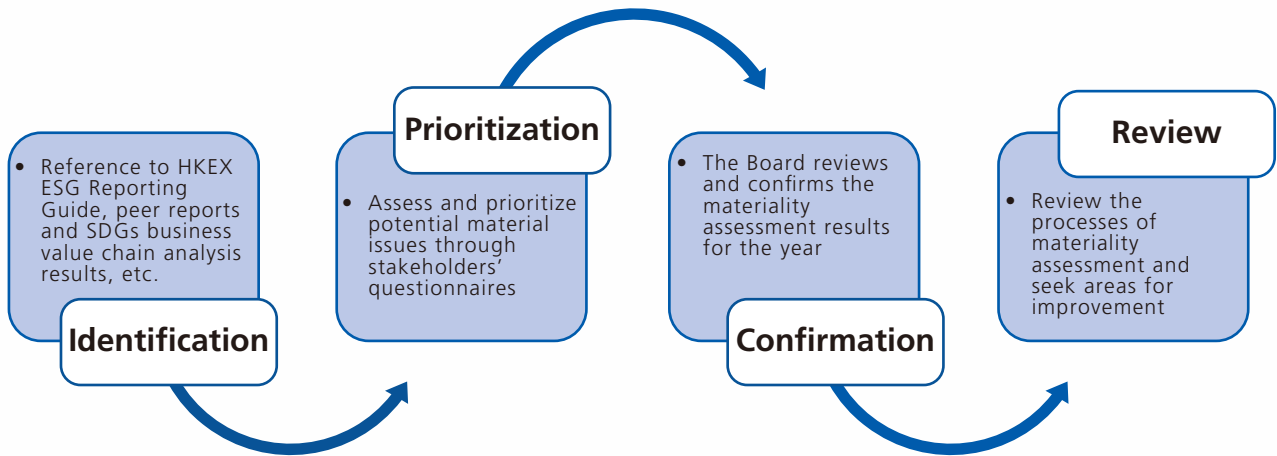
Long-term and effective communication with stakeholders is the top priority for improving sustainable development. During the Reporting Period, the Group evaluated material topics to important stakeholders including employees, investors, customers, suppliers and contractors through online questionnaires. By analyzing the survey results of the Group's management and other stakeholders, the topics identified by the Group's management and other stakeholders as having a significant impact on the Group's economy, society and environment are summarised. The Group fully understands their demands and expectations and incorporates them into the Group's sustainable development management policy.

Stakeholder Groups	Communication Channels	Issues of Concern
Management	<ul style="list-style-type: none"> Regular meetings Internal communication 	<ul style="list-style-type: none"> Economic benefits Smart port Innovation and intellectual property rights Anti-corruption Compliant operation Business ethics Management of contraband and anti-smuggling of marine cargo Port area greening Climate action
Employees	<ul style="list-style-type: none"> Internal communication Seminars and questionnaires Labor union Employee activities 	<ul style="list-style-type: none"> Talent management Occupational health and safety Employee training and development Diversity and equal opportunity Employee communication Labor Standards
Customers	<ul style="list-style-type: none"> Satisfaction surveys Complaint handling mechanism 	<ul style="list-style-type: none"> Product health and safety Customer satisfaction Customer privacy and cybersecurity Dangerous goods management
Shareholders/investors	<ul style="list-style-type: none"> Annual report Shareholder meetings Investor meetings 	<ul style="list-style-type: none"> Corporate governance Compliant operation Business ethics Environmental compliance Anti-corruption Economic benefits
Suppliers/contractors	<ul style="list-style-type: none"> Supplier assessment Procurement platform Materials trading platform Supplier meetings 	<ul style="list-style-type: none"> Supplier management Contractor management Green procurement
Community	<ul style="list-style-type: none"> Volunteering activities Donation 	<ul style="list-style-type: none"> Community engagement Community Opinion

SUSTAINABLE DEVELOPMENT MANAGEMENT

Material Topics

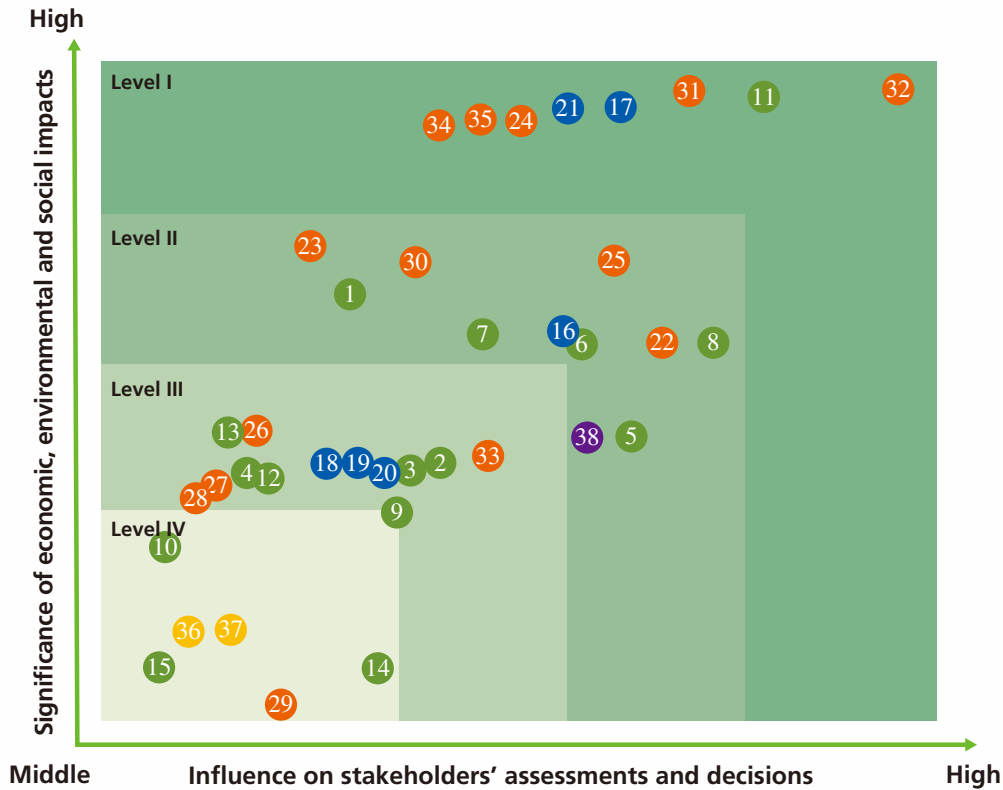
We have identified ESG topics that have a significant impact on the Group and stakeholders, i.e. material topics, through the four steps of identification, prioritization, confirmation and review, as an important entry point for the Group to promote sustainable development.



We have prioritized the outcome of stakeholder communication in two dimensions, namely "significance of economic, environmental and social impacts" and "influence on stakeholder assessments and decisions" and determined the following materiality matrix. The Board of the Group has reviewed the outcomes of this materiality assessment.



SUSTAINABLE DEVELOPMENT MANAGEMENT



Level I	Level II	Level III	Level IV
32 Compliant Operation	25 Customer Satisfaction	33 Innovation and Intellectual Property Rights	37 Community Opinion
11 Environmental Compliance	8 Oil Spillage	2 Clean Energy	14 Climate Action
31 Anti-corruption	22 Product Health and Safety	3 Water	10 Noise Pollution
17 Occupational Health and Safety	6 Wastewater	20 Employee Communication	15 Marine Biodiversity and Land Utilization Management
21 Labor Standards	16 Talent Management	18 Employee Training and Development	36 Community Engagement
24 Management of Contraband and Anti-smuggling of Marine Cargo	30 Business Ethics	19 Diversity and Equal Opportunity	29 Green Procurement
35 Emergency Response	7 Waste (e.g. Marine Plastics) Management	26 Customer Privacy and Cybersecurity	
34 Smart Port	5 Air Emission	12 Environmental Expenditure	
	23 Dangerous Goods Management	4 Ecological Conservation	
	1 Energy Consumption Management	27 Supplier Management	
	38 Economic Benefits Generated in the Operation Sites	13 Port Area Greening	
		28 Contractor Management	
		9 Greenhouse Gas Emission	

- Environmental Topics
- Labor Topics
- Operational Topics
- Economic Topics
- Community Topics

The topics in the matrix are classified into four levels, of which topics in the first level are the material topics for the Group during the year. According to the analysis results, the material topics in 2022 focus on **compliant operation, environmental compliance, anti-corruption, occupational health and safety, labor standards, management of contraband and anti-smuggling of marine cargo, smart port and emergency handling**. The following are measures to the material topics during the year.

SUSTAINABLE DEVELOPMENT MANAGEMENT

Management Measures for Material Topics

Material Topics	ESG Key Risks and Opportunities	Management Measures Taken in 2022
Compliant Operation	Non-compliance in operations could result in fines and damage to our Group's reputation	<ul style="list-style-type: none"> Kept abreast of developments in national and regional laws and regulations, and prepared or revised internal rules and regulations to ensure compliance
Environmental Compliance	Violations of pollution prevention and environmental protection laws may result in fines and damage to the Group's reputation	<ul style="list-style-type: none"> Optimized the environmental protection system Strengthened environmental supervision and inspection
Anti-corruption	Corporate and supply chain fraud can severely disrupt the Group's operations and cause reputational and financial losses	<ul style="list-style-type: none"> A whistle-blowing mechanism has been in place to provide channels for anonymous reporting of suspicious cases Participated in anti-corruption training activities, including special training for discipline inspection cadres and theoretical basis learning Conducted ethical assessment when selecting suppliers
Occupational Health and Safety	Employee safety incidents can lead to operational disruptions, legal proceedings and reputational damage	<ul style="list-style-type: none"> 16 subsidiaries and affiliates have obtained occupational safety and health certifications and met the production safety standards Conducted overall planning of training needs during the beginning of the year, and then carried out targeted safety training Carried out a total of 9,212 hours of safety training during the year, with a total of 147,763 participants Strengthened safety assessment and adopt advanced technologies to carry out full-coverage safety hazard investigation on operating sites Formulated occupational disease prevention work plan Annual body check for all employees
Labor Standards	Clear labor standards can improve the relationship between employers and employees, protect employees' rights and interests, while failure to improve labor standards can lead to labor disputes, lower operating efficiency and result in legal proceedings and reputational damage	<ul style="list-style-type: none"> There was no labor non-compliance during the year; Ensured equal remuneration, benefits and promotion opportunities for male and female employees Implemented a well-rounded training, education, remuneration and promotion system Managed labor safety, labor disputes and other aspects for outsource labor units strictly
Management of Contraband and Anti-smuggling of Marine Cargo	Inappropriate management of banned goods could result in disruption of operations, increased financial expenditures, fines, reputational damage and financial loss	<ul style="list-style-type: none"> Cooperated with the public security department and other government-led departments to manage banned goods to the greatest extent, and conducted quality inspection and production inspection of on-site goods





SUSTAINABLE DEVELOPMENT MANAGEMENT


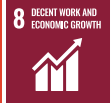

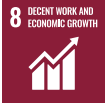
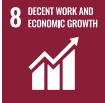



Material Topics	ESG Key Risks and Opportunities	Management Measures Taken in 2022
Emergency Response (e.g. extreme weather changes, leakage of dangerous goods, etc.)	Inadequate or inappropriate response will result in disruption of operations, increased financial expenses and increased safety, health and environmental risks during operations	<ul style="list-style-type: none"> • There was no ship pollution (oil leakage) incident throughout the year • Carried out emergency environmental plans drills, made regulatory filings for terminal operators, made clear regulations on pollutants and oil pollution, and held regular drills and checkups during the year • Carried out targeted emergency drills and incorporated extreme weather management into daily inspection
Smart Port	The sustainable development of smart ports will vigorously promote the operations and development of the Group, improve operational efficiency and enhance the inter-linked development of the Group. Failure to develop the smart port in accordance with its existing goals will restrict the future technology and smart transformation of the port and reduce its operational competitiveness	<ul style="list-style-type: none"> • Formulated the 14th Five-Year Development Plan, and strengthened the top-level systematic design of smart ports, promoting the automation transformation of production facilities, improving the automation level of production and management of the port, innovating logistics service models, promoting the automated transformation of the port and upgrading the digital industry transformation • Technologies such as the automation transformation of large container equipment, 5G applications (e.g. 5G full-connection terminals, 5G remote control of quay cranes, 5G intelligent tallying, 5G intelligent unlocking station, container operations, etc.), BeiDou, cloud computing and artificial intelligence have been fully developed and comprehensively used • Automatic driving technology has been fully applied in the transportation of container terminals

SUPPORT THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

We have incorporated the United Nations Sustainable Development Goals (SDGs) into our business development strategy and are committed to aligning the responses of our stakeholders with the relevant sustainable development goals (SDGs) to actively promote the integration of operational development and sustainable development value.

SDGs	The Group's Six Sustainability Policies	Relevant Sustainability Topics
    	<p>Environmental Commitment</p> <p>We build a green port at sea, promote the use of clean energy, continuously reduce the impact of operations on the environment, and move towards a low-carbon port.</p>	<ul style="list-style-type: none"> • Oil Spillage • Ecological Conservation • Environmental Compliance • Energy Consumption Management • Clean Energy • Climate Action • Water • Greenhouse Gas Emission • Wastewater • Air Emission • Waste Management • Environmental Expenditure • Port Area Greening

SUSTAINABLE DEVELOPMENT MANAGEMENT

SDGs	The Group's Six Sustainability Policies	Relevant Sustainability Topics
  	<p>People Focus</p> <p>The Group is committed to creating a good working environment and atmosphere, optimizing talent policies, gathering and attracting talents, and promoting the development of the Group.</p>	<ul style="list-style-type: none"> • Labor Standards • Employee Communication • Talent Management • Diversity and Equal Opportunity • Occupational Health and Safety • Employee Training and Development • Dangerous Goods Management
	<p>Quality First</p> <p>By selecting high-quality suppliers and improving the product management system, we continuously improve the operation process to improve the service quality.</p>	<ul style="list-style-type: none"> • Smart Port • Innovation and Intellectual Property Rights • Product Health and Safety
	<p>Customer Oriented</p> <p>We keep regular communication with customers to maintain customer satisfaction and provide professional and reliable services to customers to meet their needs.</p>	<ul style="list-style-type: none"> • Customer Satisfaction • Customer Privacy and Cybersecurity
 	<p>Business Ethics</p> <p>Adhering to business ethics, we undertake to operate our business in a fair, honest and legal manner, and adopt a zero-tolerance attitude towards corruption.</p>	<ul style="list-style-type: none"> • Anti-corruption • Compliant Operation • Management of Contraband and Anti-smuggling of Marine Cargo • Contractor Management • Supplier Management
	<p>Practicing Public Welfare</p> <p>Committed to promoting the sustainable development of the economy and society of the communities in which we operate through the Group's influence in public welfare, bringing positive impact to the local communities.</p>	<ul style="list-style-type: none"> • Community Engagement • Community Opinion



AWARDS AND HONORS

Awards and Honors	Issuing authority
Tianjin Port Development Holdings Limited	
Most Leading Port Operating Services	Finance Derivative
Most Outstanding Cargo Handling Services	
Best Environmental, Social and Governance Report (Environmental) at the 8th Investor Relations Awards	Hong Kong Investor Relations Association
Best ESG Report	Hong Kong ESG Reporting Awards
Tianjin Port Holdings Co., Ltd.	
The List of Model State-owned Enterprises for Corporate Governance	the State-owned Assets Supervision and Administration Commission of the State Council
First – Class Award for Science and Technology Progress Award in 2022 (Award winning project: Research on Key Technology of Cold Chain Cargo Non-contact Intelligent Transportation System)	China Port & Harbors Association
Second – Class Award for Science and Technology Progress Award in 2022 (Award winning project: Research and Application of Intrinsic Safety Intelligent Control System of Port)	China Port & Harbors Association
Tianjin Port Pacific International Container Terminal Co., Ltd.	
Four-star China Green Port	China Port & Harbors Association
Second – Class Award for Science and Technology Progress Award in 2022 (Award winning project: Intelligent Customs Control Platform and Panoramic Visualized Safety Control System of Container Terminal based on Digital Twin Technology)	China Port & Harbors Association
Third – Class Award for Science and Technology Progress Award in 2022 (Award winning project: Research and Development of the Panoramic Monitoring Platform of Mobile Machinery)	China Port & Harbors Association
Tianjin Port Global RO-RO Terminal Co., Ltd.	
Third – Class Award for Science and Technology Progress Award in 2022 (Award winning project: Vehicle Logistics Information Management System of Ro-Ro Terminal)	China Port & Harbors Association
Tianjin Port Yuanhang International Ore Terminal Co., Ltd.	
Four-star China Green Port	China Port & Harbors Association
Tianjin Port China Coal Hua'neng Coal Terminal Co., Ltd.	
Four-star China Green Port	China Port & Harbors Association

SUSTAINABLE DEVELOPMENT FEATURE: SMART PORT

The port of Tianjin is located at the intersection of the Beijing-Tianjin-Hebei urban cluster and the Bohai Economic Rim. As the “maritime gateway” in Beijing-Tianjin-Hebei region, The port of Tianjin serves beyond the Beijing-Tianjin-Hebei cluster and spreads across Three-North region. It directly faces Northeast Asia region and is the eastern starting point of the China-Mongolia-Russia Economic Corridor, an important node of the New Asia-Europe Land Bridge, and a strategic fulcrum of the “Maritime Silk” road in the 21st century. It is also a logistics center that unblocks the domestic cycle and promotes the domestic and international dual cycle.

“Smart Port” is based on modern infrastructure and equipment. It deeply integrates the new generation technologies such as 5G, BeiDou high-precision positioning system, cloud computing, big data and the Internet of Things with port operations business, innovates port operations services, achieves optimal allocation of port resources, and meets the requirements of multi-level, agile and high-quality port operations services.

SMART PLATFORM

In order to improve the service level of the Group, our subsidiaries and affiliates of the Company upgraded the one-stop “digital and intelligent” business hall by means of smart communication, established and completed the digital construction of the integrated production control platform project and service window, and provided customers with more efficient smart services.



Tianjin Port Coke Terminal Co., Ltd.

One-stop “digital and intelligent” business hall

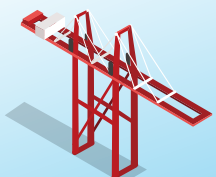
Tianjin Port Coke Terminal Co., Ltd. upgraded the one-stop “digital and intelligent” business hall, expanded the customer service area based on the supporting software and hardware facilities, and realized more convenient business consulting services. Through the implementation of projects such as the “Agile Development” program and the “Safety Integrated Intelligent Control Platform”, the safety and production control dimensions have been fully covered.



Tianjin Port Petrochemicals Terminal Company Limited

Digital construction of integrated production control platform project and service window

Tianjin Port Petrochemical Terminal Company Limited digitally empowers the Company’s safety and environmental protection, operation and production, reform and innovation, and internal management. It completed the digital construction of the integrated production control platform project and service window, and initiated the construction of digital base, unified platform entrance, digital collaborative office project and other projects.



SUSTAINABLE DEVELOPMENT FEATURE: SMART PORT

SMART OPERATION

The Group is committed to improving operational efficiency. Our subsidiaries and affiliates have established a special working group to improve the efficiency of docking and departure of ships at ports. The Intelligent tallying operations have enabled the tallying workers to improve their operating capabilities. In addition, through advanced technologies such as V-section millimetre wave communication, we transformed the automatic remote control shore bridge to improve the efficiency of loading and unloading operations.

**Tianjin Port Tugboat Lighter Co., Ltd.****Working with Pilot Center to improve berthing and unberthing efficiency**

Under the joint promotion of both parties, the vessel berthing and unberthing efficiency of Tianjin Port has been significantly improved. The berthing and unberthing efficiency has increased by 8% on average, and the berthing and unberthing efficiency of key vessels such as containers has increased by 12%.

**Tianjin Ocean Shipping Tally Co., Ltd.****Normal operation of three operating lines by one person with the intelligent container tallying**

The intelligent container tallying system now enables one person to handle 3 loading and unloading lines at the same time. This elevates the potential of intelligent container tallying operations, and improves the operating capabilities of tallying personnel. This mode released more human resources, thus improving the efficiency of intelligent container tallying operation and taking the lead in reaching the highest level of integrated operation of domestic intelligent container tallying.

SUSTAINABLE DEVELOPMENT FEATURE: SMART PORT



Tianjin Port Euroasia International Container Terminal Co., Ltd.

The quay crane equipped with automatic remote control

Through advanced technologies such as visual inspection, laser range pattern recognition technology, electronic optical anti-shaking technology, and V-section millimeter wave communication, the quay crane is equipped with automatic remote control. With the average efficiency of 25mov/h of a single crane, the quay crane equipped with automatic remote control completed the loading and unloading operation of the "Ever-22" vessel, and the highest efficiency of single crane can reach 30mov/h, achieving excellent results in the industry.

FACILITY AND EQUIPMENT AUTOMATION

The Group is vigorously carrying out automation transformation. We have built automated driving areas, automatic transformation of gantry cranes and storage yards, equipped with fully automatic rubber-tyred gantry cranes with healthy and intelligent testing systems and intelligent transformation of berth connection equipment to strengthen the intelligent operation capability of infrastructure equipment, thus achieving a safe, accurate, automatic and large-scale operation system.



Tianjin Port Pacific International Container Terminal Co., Ltd.

Autonomous driving area

Unmanned electrical container trucks are dispatched in accordance with the guidance of the system for precise driving, and the quay cranes and rubber-tyred crane equipment are automated in Phase II, The autonomous driving area will expand and optimize the autonomous driving fleet on the basis of the Phase I plan, and an automatic transportation management system will be built to achieve diversified and large-scale access application of the same type of the load equipment.



SUSTAINABLE DEVELOPMENT FEATURE: SMART PORT



Tianjin Port Alliance International Container Terminal Co., Ltd.

Automatic transformation of gantry cranes and yards

The Company realized the automation transformation of 13 gantry cranes and 12 yards, with a control ratio of 1: 3. A total of over 260,000 natural boxes were handled, with a comprehensive average efficiency of 19 natural boxes per hour. The Company uses information technology to install a deceleration box monitoring system to achieve the prediction of the performance of the deceleration box. The Company carried out 90 first-level equipment maintenance and 676 compulsory maintenance, and the equipment failure rate decreased by 25% year-on-year.



Tianjin Port Euroasia International Container Terminal Co., Ltd.

Automatic rubber-tyred gantry cranes

Four 41T fully automatic rubber-tyred gantry cranes were put into use, and the number of gantry cranes increased to 37, which is expected to increase the annual turnover capacity of the storage yard by approximately 48,000 TEU. The gantry crane adopts an internationally advanced automatic control and equipment health intelligent monitoring system, and is equipped with an automatic cable plugging system, which has a high level of safety and intelligence. The new steel wire rope process was applied in the gantry cranes to reduce the weight of the whole machine and greatly improve the efficiency of use.



Tianjin Port Yuanhang International Ore Terminal Co., Ltd.

Phase I of the intelligent transformation project of South 26 berths connection equipment completed and accepted

The Phase I of the intelligent transformation project of the South No. 26 berth connection equipment was officially completed and accepted. The project realized the full process and automatic operation of the connection equipment. Up to now, a total of nearly 1,800,000 tonnes of remote and automatic test operations have been completed for ship unloaders, container yards, loading buildings and other equipment in the project, 55 drivers have been trained and assessed, and the smart control platform and video integration system have been running smoothly.








環境承擔

**Environmental
Commitment**



ENVIRONMENTAL COMMITMENT

The Group adheres to the development concept of “people-oriented, safety and health and environmental friendliness” and continues to build a green port at sea with the goal of “building a world-class green and smart port”. We actively adopt technologies such as clean energy and smart monitoring to minimize the impact on the environment, and actively identify environmental risks related to the Group’s services and operations, so as to fulfill our environmental protection responsibilities while coping with challenges.

Relevant SDGs	Relevant Issues
 6.3 Reduction of water pollution 6.4 Improving water efficiency  14.1 Prevention and reduction of marine pollution, especially from land activities	<ul style="list-style-type: none"> • Oil Spillage • Wastewater • Water • Ecological Conservation
 12.5 Waste reduction	<ul style="list-style-type: none"> • Environmental Compliance • Waste Management
 7.2 Increase renewable energy 7.3 Improving global energy efficiency	<ul style="list-style-type: none"> • Clean Energy • Energy Consumption Management • Environmental Expenditure
 13.1 Strengthen resilience and adaptation to climate-related hazards and natural disasters 13.3 Increasing awareness of climate change mitigation and adaptation	<ul style="list-style-type: none"> • Air Emission • Greenhouse Gas Emission • Port Area Greening • Climate Action

TACKLING CLIMATE CHANGE

The Group is well aware of the significant impact of climate change on the global and the Group’s business operations. In the face of the increasingly severe climate change threats, the Group has carried out climate-related risks and opportunities assessment in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) since 2020. In 2022, the Group launched a new round of climate change questionnaire assessment added a matrix analysis based on the assessment result to further improve the integrity and transparency of climate-related information disclosure, and more intuitively demonstrate the short, medium and long-term climate-related risks and opportunities identified.

Governance

The Board of Directors of the Group is fully responsible for the work related to climate change. The ESG Working Committee ensures that the relevant requirements are met and makes recommendations, and reports to the Board at least once a year. The Board reviews and determines the risk management matters related to climate change through the Audit Committee.

For the relevant climate change governance structure, please refer to the Group’s official website.

ENVIRONMENTAL COMMITMENT

Strategies

The Group agreed that scenario analysis can help to explore and understand the impact of various climate-related risks, including transition and physical risks, on business, strategy and financial performance with the lapse of time. Following TCFD's recommendations, the Group selected RCP 8.5 – the baseline scenario of the highest greenhouse gas emissions as a conservative forecast for the physical risk assessment, and assessed the transition risks related to climate with IEA 2DS – the International Energy Agency Sustainable Development Scenario.

RCP 8.5 scenario: Under this scenario, there is no new climate change policy in the world to predict and limit emissions. It is estimated that by 2050, the global average temperature will increase by 2.3 degrees Celsius compared to the early stage of industrialization, and by 2100, the sea level will increase by approximately 0.43 meters.

IEA 2DS scenario: The scenario assumes a high level of global sustainable development by 2050. Through various new policy requirements and measures, the global warming is controlled within 2.0 degrees Celsius and the climate change and air pollution issues are effectively addressed.

For a detailed description of the risks and opportunities, please refer to the “**Climate-related Risks and Opportunities Management**” section.

Physical risks

- Physical risks caused by climate change may be driven by acute events or long-term shifts in climate patterns. Physical risks may have a financial impact on the Group, including direct damage to assets and indirect impacts such as supply chain disruption, business disruption, stock price volatility and threat to employee health and safety, resulting in asset depreciation, decrease in revenue and profit, decline in stock prices and increasing operating and material costs.

Transition risks

- In the process of transition into a low-carbon economy, there may be significant changes in technology, market, investment and financing environment, policies and laws, which may bring potential financial risks, including increased investment in work, increased operating and financing costs, and decreased revenue due to loss of customers.

Opportunities related to climate change

- Climate change may expose the Group to various climate-related risks and negative financial impacts, but it may also create climate-related opportunities and produce positive or favorable results during the transition to net zero.

Climate-related Risks and Opportunities Management

The Group actively responded to global climate change and continued to pay attention to climate-related risks and opportunities. Based on the results of the 2022 questionnaire assessment, the identified risks and opportunities were ranked in accordance with the two dimensions of “potential risks (degree of impact)” and “impact time period”, and the following matrix was determined.





ENVIRONMENTAL COMMITMENT

Key performance



○ Transition risks

Policy and legal risks

- Increase in industry environmental disclosure requirements
- Implementation of carbon pricing mechanism
- More policies to mitigate climate change
- Stricter environmental regulations

Technology risks

- Global low-carbon transition
- The wide application of new energy-saving facilities

Market risks

- Rising resource prices

Reputational risks

- Unable to meet climate change compliance requirements
- Negative environmental performance
- Intentionally green wash

● Physical risks

Acute physical risk

- Extreme weather events: tropical cyclone/-typhoons, floods, winter storms, droughts, hail, etc.

Chronic physical risks

- Rise in sea level
- Changes in rainfall
- Continuous high temperature

● Climate-related opportunities

Resources efficiency opportunities

- Develop green ports

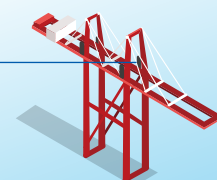
Product and service opportunities

- Change in customer preference
- Change in investor preference

ENVIRONMENTAL COMMITMENT

Impact analysis

Risk description	Potential financial impact	Impact boundary	Actions undertaken
Physical risks			
Acute physical risks			
Risks driven by extreme weather events, such as typhoons, hurricanes or floods, flooding the port or swamping the port, making the port not able to operate normally, damage to terminals, operating facilities, equipment, storage areas and cargoes, lead to siltation of port waterways.	<ul style="list-style-type: none"> • Decrease in revenue: Business operations affected • Decrease in assets: impairment of assets • Increase in expenditure: Maintenance of damaged port infrastructure and equipment, maintenance of dredging work, construction of port breakwater to resist wind and wave 	Short-medium term	<ul style="list-style-type: none"> • Conduct flood control and storm prevention drills every year • Establish corresponding emergency plans for extreme weather such as heavy rains, cold tide and sea ice • Equipped with flood prevention emergency management team for the vessels gates in low-lying areas, and set up moisture-proof baffles to seal up when water level rises, which has achieved good results • Strengthen the management of rain effects and damage prevention and tidal loss in key areas, evaluate the key points of damage prevention and the high-level changes in low-lying areas of each unit, form a statistical template for cargo conditions in key areas, and timely arrange cargo transportation and relevant records to further consolidate basic management
Chronic physical risks			
The long-term change in climate patterns and the incremental changes in climate (rising in sea level, changing in rainfall and continuous high temperatures) have led to more frequent and severe extreme events, leading to more frequent transportation delays and affecting the reliability of marine transportation.	<ul style="list-style-type: none"> • Decrease in revenue: Decrease in market demand for services 	Medium	<ul style="list-style-type: none"> • The Group optimizes the operation level and improves service quality through the development of smart ports



ENVIRONMENTAL COMMITMENT

Risk description	Potential financial impact	Impact boundary	Actions undertaken
Transition risks			
Policy and legal risks			
Directly or indirectly affected by policies and laws designed to limit the impact of climate change and/or enhance the adaptability to climate change, including the implementation of carbon pricing mechanisms, increase in environmental disclosure requirements and stricter environmental and climate policies, and increased corporate compliance	<ul style="list-style-type: none"> • Increase in cost: Increase in emission cost • Increase in cost: Increase in renovation costs 	Medium	<ul style="list-style-type: none"> • Regularly collect and update regulations through various channels such as government agencies and the Internet to ensure operational compliance
Technology risks			
Directly or indirectly affected by technological changes, including the industry's support for global low-carbon transformation to increase research and development and investment in renewable energy technologies, the wide application of new energy-saving facilities to procure new facilities and replace old equipment (Increased investment in the development of smart green ports in the industry)	<ul style="list-style-type: none"> • Increase in costs: increase investment in research and development of green technologies and purchase of new equipment • Decrease in assets: Decommissioning of original equipment 	Medium	<ul style="list-style-type: none"> • Promote the construction of smart ports and fully automate large equipment as planned
Reputational risks			
Stricter environmental regulations may expose enterprises to higher risks of claims and litigation	<ul style="list-style-type: none"> • Increase in costs: Legal cases of non-compliance claims 	Medium-long term	<ul style="list-style-type: none"> • Conduct environmental assessment on subsidiaries and affiliates with reference to the environmental protection assessment measures
Market risks			
Climate change affects the supply and demand of certain goods, products and services in the market, including the increase in resource prices (such as energy, sales of fuel, etc.)	<ul style="list-style-type: none"> • Increase in costs: increase in raw material prices 	Medium	Implementing flexible supply chain management and promoting low-carbon transformation

ENVIRONMENTAL COMMITMENT

Opportunities description	Potential financial impact	Impact boundary	Actions undertaken
Resources efficiency opportunities			
<p>In the medium-long term, improving energy efficiency can directly save operating costs and contribute to limiting global carbon emissions, including the development of green ports, the use of clean energy and the promotion of shore-based power use.</p>	<ul style="list-style-type: none"> • Cost reduction: reducing operating costs 	<p>Medium</p>	<ul style="list-style-type: none"> • Promote the application of energy-saving technologies in production and operation, such as energy-saving lamps, clean energy equipment • Promote the construction of energy management system and improve energy conservation management ability for the whole process of the system • Strengthen the optimization of port energy structure
Product and service opportunities			
<p>The innovation and development of low-carbon emission products and services can enhance the market competitiveness, such as customers' preference for more environmentally friendly service providers or products (such as low-carbon marine fuel), and investors' preference towards focusing on investing in green port operators.</p>	<ul style="list-style-type: none"> • Cost reduction: Lower financing cost • Increase in revenue: Increase in sales volume of low-carbon fuel 	<p>Medium</p>	<ul style="list-style-type: none"> • Promote the construction of smart green ports, and subsidiaries and affiliates should implement green port projects in accordance with the green port construction plan of Tianjin Port • Accelerate the transformation into a low carbon business and actively participate in low-carbon construction

Metrics and Targets

Please refer to the Group's official website for relevant climate change metrics and targets.



ENVIRONMENTAL COMMITMENT

CONSTRUCTION OF A GREEN PORT

Ports are an important component of the transportation industry. They are not only an important source of energy consumption and carbon emission, but also a key area to promote green development of the transportation industry. With the goal of "striving to build a world-class green port", the Group has formulated an implementation plan for the construction of a green port at sea, focusing on the development of clean energy and promoting the use of shore-based power, so as to fully promote the construction of a green port.

Promotion of Clean Energy

The use of clean energy is an important way for the Group to reduce indirect emissions from traditional coal-fired power consumption and reduce environmental impact. In 2022, the transportation fleet comprising 31 unmanned electric container trucks and 50 electric container trucks was put into production and operation.



In recent years, the Group has actively promoted the adjustment of transportation structure and continued to increase the proportion of iron ore railway transportation from "rail transport" to reach the national leading level. In 2022, 65% of the Group's ore was transported through railway; the sea-rail intermodal transportation achieved 1,203,000 TEUs, representing a year-on-year increase of 20.2%, of which the cross-border railway express was 93,000 TEUs, representing a year-on-year increase of 60.3%.



The promotion and wide application of clean energy is a positive response to the in-depth implementation of the coordinated development of the Beijing-Tianjin-Hebei region in the transportation sector. It is also a typical example to accelerate the integrated development of port, city and industry and the high-quality development of the Binhai New Area, effectively accelerate the green and low-carbon transformation of transportation, and make positive contributions to the transportation work based on the goal of carbon peak and carbon neutrality.

ENVIRONMENTAL COMMITMENT

Use of Shore Power

The use of shore-based power can significantly reduce emissions of sulphur oxides, nitrogen oxides and particulate matter generated from power generation by auxiliary machinery during port operations, thereby improving the air quality. The Group actively promotes the use of shore-based power. In 2022, 29 berths have been covered by shore-based power supply, and all self-owned vessels of the Group's subsidiaries and affiliates use shore-based power.

During the year, except for the failure to access shore power due to epidemic prevention and damage to electrical equipment, self-owned vessels that meet the power supply conditions arriving at the port were connected to shore power, and a total of 357 non-self-owned vessels were connected to shore power. During the year, the accumulated shore-based power supply (self-owned and non-self-owned vessels) amounted to 5,253,000 kWh.



Shore power-to-ship emergency drill

Various parties jointly assessed the Group's emergency preparedness for failure in shore-based power connection of the shore to ship power system (shore-based power equipment) for vessels. The emergency drill strengthened the emergency handling capacity of shore-based power connection to prevent losses caused by the failure of shore to ship power system.



ENVIRONMENTAL COMMITMENT

EMISSION CONTROL

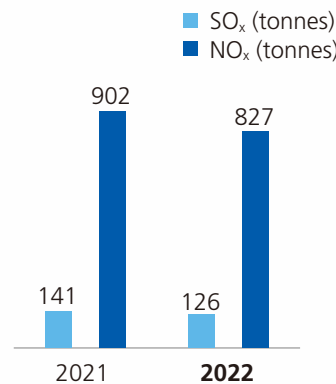
The Group deeply recognizes the importance of sustainable development and actively identifies the impact of its operations on the environment. The Group's subsidiaries and affiliates conduct regular inspections on pollution sources to ensure strict compliance with national and local laws, regulations and emission standards⁴. In 2022, the Group and its subsidiaries and affiliates did not violate any laws and regulations that have a significant impact on the Group relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.

Air Emission Management

In order to improve air quality in the port area, the Group continuously monitors air quality and takes different measures to improve air pollution control. In 2022, in order to comply with the action plan of Tianjin and Binhai New Area to fight the battle against pollution, the Group continued to strictly implement the relevant management regulations on internal air pollution prevention and control, strengthened the precise prevention and control of pollutants, and improved the air quality of the environment.

In 2022, the Group's emissions of sulphur oxides (SO_x) and nitrogen oxides (NO_x) from fuel consumption of vessels, vehicles and loading and unloading equipment were 126 tonnes and 827 tonnes respectively, representing a decrease of 11% and 8% as compared to 2021.

Total air pollutant emissions (tonnes)



Exhaust pollution control of mechanical equipment and vehicles

The Group strengthens treatment of mobile pollution sources continuously and has phased out old port machinery and equipment and vehicles to adopt models that use renewable energy to improve the level of emissions control. Currently, the proportion of new energy and National VI emission standard vehicles is over 30%, and the proportion of low-emission port machinery is 100%.

The Group has set the target to stop using non-road mobile machinery and equipment of National III Emission standard and below, and to give priority to new energy and clean energy for new port machinery.

⁴ For laws and regulations related to emissions such as exhaust gas, wastewater and waste, please refer to the Laws and Regulations section of this report.

ENVIRONMENTAL COMMITMENT

Vessel discharge at port

All self-owned vessels of the Group use fuel with sulphur content of 0.0003%–0.0009%, which is far below the requirement of the Maritime Safety Administration of the Ministry of Transport of the PRC. This year, the unit energy consumption of tugging throughput was 0.229 tonnes per vessel, representing a decrease of 10% as compared with 0.254 tonnes per vessel in the same period last year. The unit energy consumption of ships has been effectively reduced, and the fuel-saving effect has been achieved.

In addition, the Group strictly follows requirements of government departments to ensure that all its vessels and vessels in the control area use low sulphur oil. The Group's subsidiaries and affiliates ensures that marine light diesel with a sulfur content of less than 0.5% is used in vessels operating in the port to reduce air pollutant emissions from vessels. We designate special personnel to conduct spot checks on vessel fuel from time to time, and require batch inspection of oil products to ensure the quality of oil products. At the same time, the Company has strengthened regular inspections of fuel supply units to ensure the quality of oil products.

Treatment of heavily polluted weather and prevention of dust pollution

To reduce peak pollution level during the heavily polluted days in Tianjin and protect public health, the Group has set up an emergency response work command center for heavy pollution weather and included this in the emergency response system. In order to cooperate with the "Emergency Plan for Heavy Pollution Weather in Tianjin", the Group revised the implementation plan for emergency response to heavy pollution weather. When the government issues a heavy pollution weather warning, the subordinate units of the Group launch different levels of response plans according to different warning levels. Measures taken in such cases include ceasing outdoor works such as building dismantling, spraying, painting, cutting, slope spraying operations and traffic restrictions in and out of the port areas based on odd-or even-numbered license plates to immediately reduce air pollutant emissions.

In 2022, the Group kept on strictly implementing the "Six 100%"⁵ measures to curb the dust generated by bulk cargo during loading and unloading, storage and transportation, as well as during construction of infrastructure facilities. These measures ensured the normal operations of various environmental protection facilities and equipment and the average dustfall level in the port area was effectively controlled below the average level of Tianjin Binhai New Area.

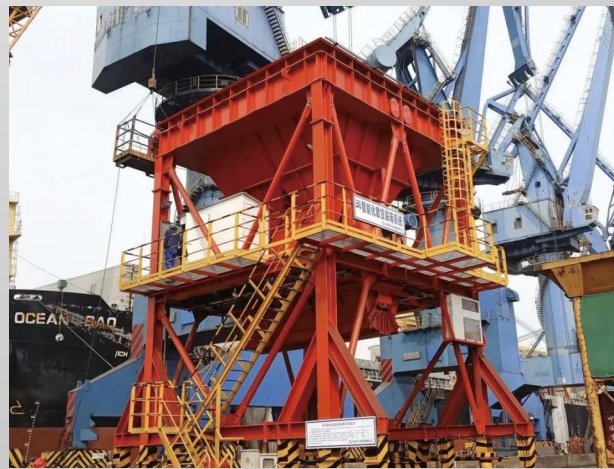
⁵ "Six 100%" : "100% construction of wind-proof net in stacking yard, 100% ground hardening of stacking yard, 100% stack covering, 100% wet process operation, 100% tyre washing and 100% enclosed transportation of bulk cargos.



ENVIRONMENTAL COMMITMENT

“Bulk cargo direct loading” smart container loading system

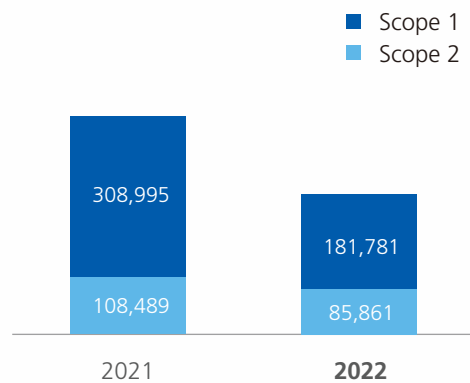
Tianjin Port Holdings Co., Ltd. jointly launched a smart container loading system With Tianjin Port China Coal Hua’neng Coal Terminal Co., Ltd, which realized a new model of “direct cargo loading to container” logistics chain of bulk cargo loading. The bulk cargo is weighted without human intervention and automatically loaded in the top open container so that the cargo can skip the process of storage in yard but be transported directly on railway. This mode reduces one cargo handling reconfiguration and four cargo loading processes thereby greatly improved the bulk cargo transportation and loading efficiency. At the same time, the smart container loading system is equipped with “three-stage” dust suppression technology under the closed-loop control. Dust is further suppressed through pressurized water diffuser which reduces water consumption and pollution to the environment.



Greenhouse Gas Emissions

In 2022, the major source of greenhouse gas emissions was indirect emissions from the use of purchased electricity and heat (Scope 2), which amounted to 181,781 tonnes of carbon dioxide equivalent, and direct emissions from the use of fuel (Scope 1) were 85,861 tonnes of carbon dioxide equivalent. During the year, the Group’s total GHG emissions amounted to 267,642 tCO₂e, representing a decrease of 36% as compared to 2021. The emission intensity was 0.021 tonnes CO₂e per HK\$’000 turnover.

GHG Emissions (tCO₂e)



ENVIRONMENTAL COMMITMENT

Sewage Management

The Group’s sewage discharge includes sewage from daily use (such as office buildings and canteen), rainfall and operations (such as loading and unloading operation, vessel cabin washing, etc.). In 2022, the Group’s total sewage discharge was 800,000 tonnes.

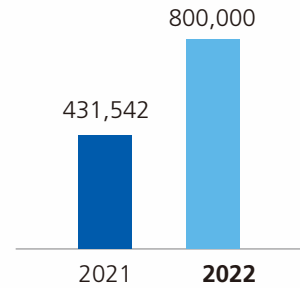
For the treatment of oily sewage, vessel washing water and domestic sewage in the port area, the Group has a sewage treatment plant in the port area and 100% of sewage generated in the area undergoes treatment. After the sewage is purified and treated to meet the standards, it will be recycled for use in the areas such as road cleaning and dust suppression at terminals. The outfalls of the sewage treatment plant are equipped with online monitoring equipment, which are connected to the Bureau of Ecology and Environment.

The Group has implemented standardized management of the sewage discharge outfalls into the sea and the clean-up and improvement of the surrounding areas of the coastline, and is 100% compliant with relevant regulations on direct discharge of pollutants into sea.

In 2022, the Group and its subsidiaries and affiliates were equipped with a total of 22 sets of sewage treatment facilities and the equipment operating costs were approximately RMB6,150,000. The daily handling capacity was approximately 18,000 tonnes, and the total amount of sewage handling was approximately 810,000 tonnes, with all sewage discharge treated and recycled during the year.

In terms of sewage discharge management, the Group strengthened the management of drainage pipe network, requiring all rainwater pipe network (well) cleanup as planned before the flood season, and prohibiting the cleaning of road garbage into rainwater well. The Group has strictly implemented Exploitation and Discharge Standard for Water Pollutants from Ships, established and perfected the planning system, and strengthened the removal of floating garbage at sea along the terminals and at harbors.

Total Sewage Discharge (tonnes)

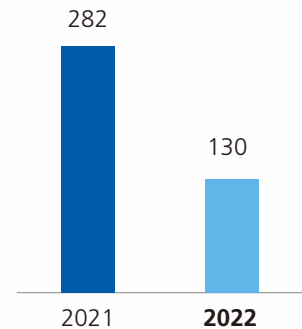


Waste Management

Hazardous wastes generated by the Group’s operations include waste engine oil, waste mineral oil, waste paint buckets, waste lamps, waste batteries, waste filters, waste filter cartridges, waste batteries and waste ink cartridges, all of which are handled by firms with hazardous waste disposal qualifications to ensure legal compliance. In 2022, the Group generated a total of 130 tonnes of hazardous waste, representing a decrease of 53.9% as compared to 2021.

In terms of non-hazardous waste, the Group actively carried out waste sorting, and the waste sorting rate of all subordinate units of the Group reached 100%. During the year, non-hazardous wastes generated by us included 1,202 tonnes of scrap steel wire ropes, 3.13 tonnes of scrap cables and 4,144 pieces of scrap tires.

Total Hazardous Waste (tonnes)



ENVIRONMENTAL COMMITMENT

In response to the need for prevention and control of the COVID-19 pandemic, the Group strictly controlled domestic waste on vessels entering the port in accordance with requirements of the National Health and Family Planning Commission and the Tianjin Municipal Health and Epidemic Prevention Department with reference to disposal methods for medical waste, and used centralized boxes for storage, which were delivered to designated unit with medical waste treatment qualifications for treatment.

Non-hazardous Waste	Unit	2021	2022
Waste wire rope	tonnes	1,478	1,202
Waste cable	tonnes	4.44	3.13
Waste tires	pieces	4,770	4,144

RESOURCE CONSERVATION

The Group actively adheres to national and Tianjin city resource management policies. We continuously improve the internal resource management system and implement a number of energy and water conservation measures, with the aim to reduce resource consumption and improve resource utilization efficiency.

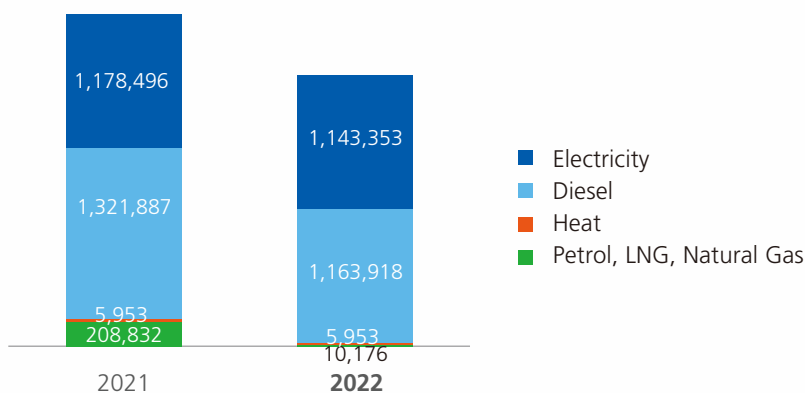
Energy Management

The Group has expanded the requirements of energy management system certification to our subsidiaries and affiliates with an annual comprehensive energy consumption of 3,000 tons of standard coal equivalent and above. As of the end of 2022, 9 subsidiaries and affiliates of the Group have obtained GB/T 23331 energy management system certification.

The Group's energy consumption is attributed to cargo handling equipment, freight vehicles and port operation vessels, which mainly involves the use of electricity, diesel, gasoline, liquefied natural gas, natural gas and heat.

In 2022, the Group consumed a total of 2,323,340 GJ of energy, down 14% from 2021. The energy consumption intensity was 0.178 GJ per thousand HK dollar revenue. Electricity and diesel are the major forms of energy consumed, accounting for 99% of the total energy consumption.

Energy Consumption (GJ)



In 2022, the comprehensive energy management and control platform of Tianjin Port was officially launched. The platform covers more than 1,400 energy monitoring points, connects with the "water, electricity, oil and gas" energy factor platform, integrates six functional modules such as "energy, operation and carbon emissions", and applies a number of advanced management and control technologies such as "digital twin", which further improves the energy consumption monitoring, management and control level of the port of Tianjin.

ENVIRONMENTAL COMMITMENT

Energy Saving Measures and Technology Application

The Group actively explores new energy and energy-saving technologies to refine the capabilities of energy data collection. With the goal of optimizing energy structure and reducing energy consumption, the Group has focused on promoting the large-scale application of new energy equipment in port operations, including electric container trucks, electric forklifts, photovoltaic power generation, etc. The Group also carried out a series of energy-saving and carbon reduction work, such as LED energy-saving transformation, charging pile construction and automation transformation of lighting, improving the efficiency of loading and unloading equipment to enhance operational efficiency and eliminating old equipment to effectively reduce energy consumption.

Online monitoring system of oil volume of gantry cranes

The Group adopts the online monitoring system of oil volume of gantry cranes, which enables online metering and monitoring of the main energy consumption of energy-consuming units and key energy-consuming equipment of each unit, and realizes the real time monitoring and data summary of daily energy consumption.

In terms of employee training, we carry out energy-saving week publicity activities to improve employees' overall awareness of energy saving. Through internal communication media, we deepen the concept of energy saving and environmental protection, earnestly promote the implementation of energy-saving laws, and create a good energy-saving atmosphere for all employees.

Water Resources Management

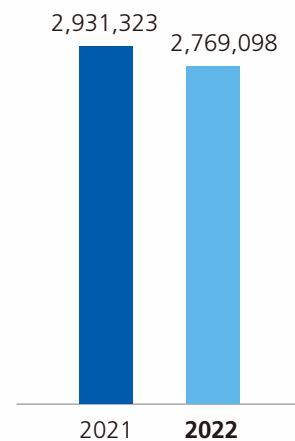
In response to national and Tianjin water-saving policies, the Group strictly implements the Water Resources Management Measures of Tianjin Port, and manages its water resources in accordance with the four major principles of "total volume control, strengthened management, scientific utilization and energy conservation" so as to reduce operating costs while saving water resources.

The Group mainly consumes water for operation, living, greening, spraying and firefighting purposes. In 2022, the total water consumption of the Group was 2,769,098 tonnes, down 6% from the previous year. The water consumption intensity was 0.213 tonnes per thousand Hong Kong dollars revenue. The Group has no issue in sourcing water that is fit for the purpose.

Water conservation

In accordance with the national and Tianjin water-saving policies, the Group strictly implements various water resources management systems and timely issues water-saving plans to its subsidiaries and affiliates, introduces smart water service platforms, remote water resources monitoring systems and replaces old equipment pipelines and water meters. Furthermore, enhanced training efforts were made to further raise the employees' awareness of water conservation.

Total water consumption (tonnes)



At the same time, the Group completed real-time adjustment of water yield and pump operating power while ensuring the water supply pressure by using zone metering system in smart water platform and self-regulating water pump.



ENVIRONMENTAL COMMITMENT

ECOLOGICAL PROTECTION

The Group attaches great importance to the protection of the ecological environment in the course of operation, strictly complies with the Law of the People's Republic of China on Environmental Impact Assessment, and proactively adopts environmental protection measures during the design, construction and operation of the projects. We engage third-party institutions with professional qualifications to conduct environmental impact assessment and strictly follow the requirements stated in the Environmental Impact Assessment during the construction period.

We have formulated internal emergency response plans in accordance with relevant national and Tianjin laws and regulations⁶, including natural disasters, offshore oil spills, and response to heavily polluted weather, etc., and clarified the responsibilities and action plans of each department of the subordinate companies to strengthen their response capabilities. In addition, the Group has established an emergency response team for environmental emergencies, which is responsible for internal personnel, resource allocation and deployment of emergency response teams of the Group when environmental emergencies occur. At the same time, the Group has also formulated corresponding environmental management systems in terms of improving air and water quality, port greening, marine biological protection and ecological restoration, and actively urges its subordinate units and departments to take corresponding measures to implement them.

Rules for ecological environment protection

- 1 Collect and process waste water, exhaust fumes and solid waste from ships in a unified way, to prevent the wastes being discharged onshore, thus reducing pollution and spread of contaminants to the port
- 2 A test is carried out for each stormwater outfall of coastal terminals and logistics companies, and each outfall is registered in the file and centrally managed
- 3 Maintain the marine ecological safety and environmental health within 500 meters of the coastline

Greening Construction and Ecological Protection

Focusing on greening construction and ecological restoration of operating points, the Group actively carries out greening work, improves the ecological landscapes and restores the ecological environment of bare areas.

In 2022, the Group has a green area of 669,582 square meters, with total green coverage of 716,031 square meters. The investment in greening during the year was RMB6,676,800 with a total of 22,391 trees and 189,595 shrubs planted.

⁶ For laws and regulations related to environmental law and environmental emergency management, please refer to the Laws and Regulations section of this report.

ENVIRONMENTAL COMMITMENT

Oil Spill Management

The Group's business involves the risk of oil spills. In order to reduce the frequency of such events, the Group establishes an emergency leadership team for offshore oil spills, formulates relevant contingency plan in accordance with the requirements of the government and the emergency leadership team, and instructs and supervises the emergency drills and training of offshore oil spills. Each staff is also required to report offshore oil spills to the maritime authorities under its jurisdiction as soon as they are detected or come to their knowledge, and also reports to the Group's chief duty office and the emergency leadership team no later than 10 minutes.

The Group's subsidiaries and affiliates also regularly conduct oil spill emergency drills or simulation drills in accordance with requirements of the contingency plan to provide practical training to emergency response personnel and ensure that they have the ability to handle marine pollution accidents.

Emergency drill for oil spill of tanker

Scenario: Leakage of a tanker while heading from west to east on the east side of the 21st container terminal to the southeast side

Measures taken:

- The driver stopped the vehicle immediately for inspection as soon as he noticed the leakage, and reported the situation to the emergency operation center
- The dust control team immediately rushed to the scene to remediate and notified the patrol center and coordination team to maintain order and surveillance
- The emergency disposal team collected various oil removal materials for on-site disposal, intercepted the spilling area with oil separation fences and used oil absorbent materials for clean-up
- The surveillance team closed off the area of spillage and arranged for personnel to be on guard. To prevent fire from the oil spill, the team arranged personnel to hold fire extinguishers for surveillance
- After completing the clean-up task, the emergency disposal team reported to the commander and conducted an evaluation of the drill



In 2022, the Group had no major pollution caused by vessels or leakage incidents.



ENVIRONMENTAL COMMITMENT

ENVIRONMENTAL MANAGEMENT SYSTEM

Responsible environmental management will help achieve collaborative economic and environmental development. We have been complying with relevant national laws and regulations, and formulated the internal environmental management system and documents of the Group with reference to the PERS environmental management standards of the European Port Organization (ESPO) ecological port and ISO14000 and ISO14001 as research background so as to carry out environmental management more efficiently. In 2022, a total of 16 subsidiaries and affiliates of the Group obtained GB/T 24001 environmental management system certification.

We have established a systematic environmental management system to achieve the reporting of environmental protection information, data, facts, etc., the implementation of various measures for the prevention and control of dust in bulk cargo operations, the orderly development of environmental impact assessment of basic construction projects, and the orderly progress of information reporting such as environmental impact assessment documents, environmental impact assessment documents approval and environmental protection acceptance checks.

In addition, for assessment of environmental management, we require all subordinate units and their departments to submit self-inspection reports, and conduct scoring assessment on each department through regular inspections and spot checks. The assessment results become one of the important bases of the performance of each subordinate units. In 2022, all subsidiaries and affiliates of the Group passed the environmental protection assessment.



為本



People Oriented

我在崗

帶病設備不上崗

PEOPLE FOCUS

The Group adheres to the “people-oriented” talent management concept, respects and protects the basic rights and interests of employees, continuously improves the employment, remuneration, vacation and other systems, optimizes the talent strategy, and builds a diversified, inclusive, safe and equal working environment.

Relevant SDGs	Relevant Issues
 5.C Adopt and enhance policies to promote gender equality 10.4 Adopt policies, especially fiscal, salary and social security policies, to gradually achieve greater equality	<ul style="list-style-type: none"> • Diversity and Equal Opportunity • Talent Management • Labor Standards
	
 8.6. Promote youth’s employment 8.8 Protect labor rights and promote safe and secure working environments for all workers	<ul style="list-style-type: none"> • Occupational Health and Safety • Employee Training and Development • Employee Communication • Dangerous Goods Management

OCCUPATIONAL HEALTH AND SAFETY

The Group attaches great importance to its health and safety performance, and is committed to minimizing occupational safety and health related risks and hazards, and creating a safe workplace and safety culture. On the basis of strict compliance with relevant national and local laws and regulations⁷ such as the Production Safety Law of the People’s Republic of China, the Regulations of Tianjin Municipality on Production Safety and the Regulations of Tianjin Municipality on Production Safety Responsibility System, the Group’s subsidiaries have formulated a series of internal systems such as the Safety Production Inspection System to improve the basic protection of occupational health management system.

Safety management indicators

- 1 There were no major or above production safety accidents and no work-related fatalities. Major work-related injury rate does not exceed 0.199‰, and monthly work injury frequency rate does not exceed 0.206‰
- 2 100% realization rate of hidden danger investigation plan and 100% rectification rate of hidden dangers
- 3 Full coverage of inspection on key parts of production safety
- 4 Full coverage of fire safety key units inspection
- 5 Fulfill the entity responsibility, strengthen fire safety control, timely address and eliminate fire hazards, and ensure zero fire accidents
- 6 Control the number of (non-) road traffic violations and road traffic accidents, and the number of road traffic fatalities with equal or above responsibilities is 0

During the year, the Group was not aware of any material incidents relating to occupational safety and health management, and no work-related fatalities or material production safety accidents were recorded.

⁷ For laws and regulations related to health and safety such as production safety, please refer to the Laws and Regulations section of this report.

PEOPLE FOCUS

Management Structure

Adhering to the governance principle of “safety first, prevention-oriented and comprehensive management”, the Group implements “hierarchical responsibility” management for safety in production, and links the safety assessment performance with the remuneration of the management. In the event of major risk accidents, the “one-vote veto system” will be implemented to ensure the effective implementation of safety management.



Health and Safety Management

In 2022, a total of 16 subsidiaries and affiliates of the Group have obtained the occupational health and safety management system GB/T 45001 certification, and a total of 14 subsidiaries and affiliates have committed to comply with the International Convention for Safety of Life at Sea (SOLAS) to achieve stricter safety production standardization processes and ship safety management.

Total investment in production safety
RMB90,958,801

Production safety inspection

In order to identify and reduce potential risks in the production process, the Group has established a production safety action team to carry out key project construction in seven aspects, including employee safety quality, safety operation procedures, investigation and treatment of hidden dangers and etc., to build a solid defense line for production safety.

The Group regards production safety compliance as a key task and requires relevant enterprises handling hazardous chemicals to meet production safety standards. During the year, we have successively completed quarterly and annual special inspections on production safety, and put forward 64 safety suggestions and supervise the subsidiaries and affiliates for immediate rectification and improvement.

Safety assessment mechanism

The Group is committed to improving the safety responsibility assessment system, carrying out safety assessment strictly on a monthly, quarterly, semi-annual and annual basis, and urging all subsidiaries and affiliates to effectively implement the main responsibility of production safety. During the year, all subordinate units of the Group completed the safety assessment.



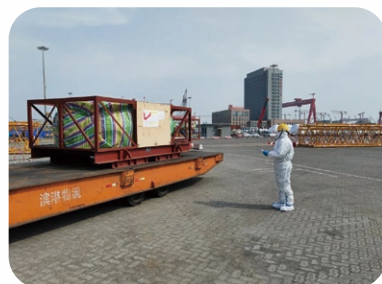
PEOPLE FOCUS



Tianjin Port No. 4 Stevedoring Co., Ltd. carried out special rectification in respect of on-site operation, building fire protection, road traffic, external personnel management and control, etc.



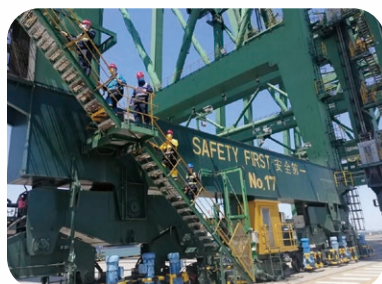
Tianjin Port Petrochemicals Terminal Company Limited comprehensively carried out safety hazard investigation in terms of equipment and facilities, fire safety, emergency management, electricity safety, etc.



China Ocean Shipping Agency Tianjin Co., Ltd. carried out full coverage self-inspection actions of safety production, and timely investigated and eliminated hidden dangers in key links such as tallying operations and emergency response preparation.



Leaders of Tianjin Port Pacific International Container Terminal Co., Ltd. led teams to go deep into production sites, construction sites, external service windows and other areas to comprehensively inspect the implementation of production safety requirements.



Tianjin Port Pacific International Container Terminal Co., Ltd. established a "Little Red Cap" safety inspection team to promote the improvement of 145 projects by using the inspection method of "video inspection + on-site inspection".

In 2022, the Group carried out 618 safety production inspections and rectified 1,272 items.

Improving safety management level

In order to respond to possible safety accidents in a timely and effective manner, the Group has applied smart security management technologies to its daily operations, and continuously improved the emergency response mechanism, formulated detailed emergency plans for production safety accidents, and held regular drills. In 2022, the Group held a total of 1,124 safety emergency drills with 14,179 participants.



Lower Cabin Auxiliary Fall Prevention Device Technology

Tianjin Port No. 4 Stevedoring Co., Ltd. applied the "lower cabin auxiliary fall prevention device technology" in production and operation. When an employee accidentally falls, the fall-proof device will quickly lock up the ratchet, preventing the employee from continuing to fall, and effectively reducing the risk of personnel falling from the lower cabin.

PEOPLE FOCUS



Emergency Desktop Performance System

Tianjin Port Petrochemicals Terminal Company Limited realized desktop rehearsal in cases of emergency response to port pollution and initial fire treatment through a three-dimensional virtual reality technology construction model combining accident scenarios and on-site command and communication systems.

Application of safety management technology

Safety Culture Nurturing

The construction of safety culture is an important part of occupational health and safety management. The Group has completed safety electronic publications, covering industry trends, safety and environmental issues, excellent management methods of each unit, accident hazards and other aspects, so as to encourage each unit to create a safety culture with distinctive characteristics. In addition, the Group advocates activities such as safety production skills competition and knowledge competition to enhance the traditional safety culture brands such as "Ankang Cup Competition" and "Youth Safety Demonstration Post", promote the innovation of safety production process and operation methods, shape an infectious safety culture activity brand, and build a safety culture demonstration enterprise.

Safety Training

The Group has formulated targeted safety training plans for employees. At the beginning of the year, the Group coordinated the overall training needs, gradually carried out special safety training, and monitored daily training progress to ensure that various safety training programs are implemented. Safety training is conducted online and offline, covering online Q & A, offline courses, etc.



Tianjin Port Pacific International Container Terminal Co., Ltd. carried out fire knowledge training for all employees and special drills on evacuation and escape of all employees and fire extinguishing to create a good atmosphere of "everyone learns fire-fighting and everyone understands fire-fighting".



Tianjin Port No. 4 Stevedoring Co., Ltd. incorporated fire knowledge training, daily emergency drills, emergency handling procedures and practice simulation into daily safety control, and organized all employees to carry out fire drills.



PEOPLE FOCUS



Tianjin Port Alliance International Container Terminal Co., Ltd. invited production safety experts from Bureau of Emergency Management of Tianjin to organize special training on fire safety knowledge both online + offline.



China Ocean Shipping Agency Tianjin Co., Ltd.* actively implemented the concept of "safety for everyone and safety for every day", popularized fire safety knowledge to employees, improved fire safety awareness and enhanced fire response capabilities.

In 2022, the Group carried out a total of 1,233 safety production training and education with 147,763 participants.

Occupational Disease Prevention

The Group regularly conducts annual physical examinations for all employees and distributes safe office and construction equipment to employees to prevent workplace safety accidents and reduce occupational disease hazards.

The Group has formulated an internal occupational disease prevention work plan and set the following work objectives:

No acute occupational disease hazards occurred throughout the year, striving to achieve zero incidence of occupational diseases;

For workers exposed to occupational disease hazards, the physical examination rate before, during and after duty reach 100%; at the same time, occupational health monitoring files and established and perfected for these workers, with a 100% filing rate;

The distribution rate and utilization rate of occupational disease protective gear reached 100%;

The main person-in-charge, occupational health management personnel, and workers exposed to occupational disease hazards shall get occupational health training and obtain the corresponding training certificate, with the participation rate and pass rate reaching 100%;

For workplaces with occupational disease hazards, the warning signs setting rate and occupational disease hazards notification rate reached 100%.

PEOPLE FOCUS

DANGEROUS GOODS MANAGEMENT

The control of dangerous goods is crucial to port safety. The Group strictly complies with national laws and regulations⁸, cooperates with the Regulations on the Administration of Dangerous Goods Business, and implements strict control measures and emergency management measures for potential cover-up, smuggling and other risks. In terms of bulk liquid management, the Group actively implements a series of national and industrial standards, including but not limited to safe operations regulations for tanker wharf, fire prevention design specifications for paints and chemicals terminal. In terms of containers and packaging, the Group complies with the provisions of the international conventions joined at the national level, and implements Maritime Dangerous Goods Code in practical operation to ensure safe transportation of dangerous goods. At the same time, we actively cooperate with the relevant supervision and approval work of the Customs, Maritime Safety Administration and Port and Shipping Administration, and continuously improve the internal governance mechanism to ensure port safety.

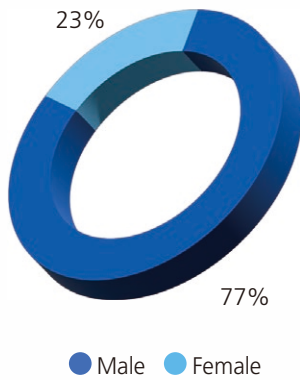
In order to improve the risk prevention and control ability of dangerous goods operation, the Group conducts regular trainings and inspection of dangerous goods operation process, and has requested relevant employees, subsidiaries and affiliates to obtain relevant work permits. At present, 100% of all dangerous goods operators have obtained safety management certification.

LABOR MANAGEMENT

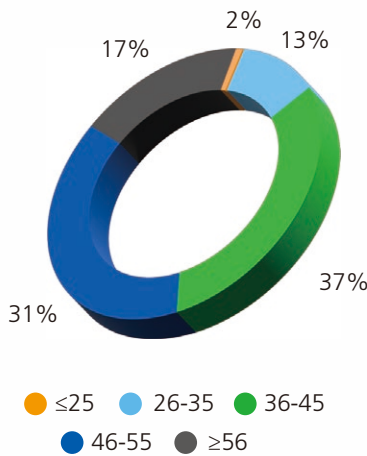
Staff Composition

As at the end of 2022, the Group had a total of 6,141 employees, including 4,735 male and 1,406 female. During the year, the Group’s employee turnover rate was 9.6%.

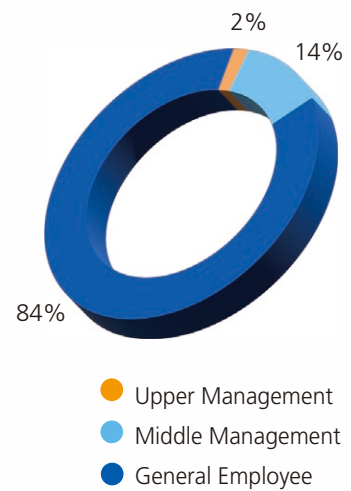
Employee Profile by Gender



Employee Profile by Age



Employee Profile by Position Level



⁸ For laws and regulations related to dangerous goods management, please refer to the Laws and Regulations section of this report.

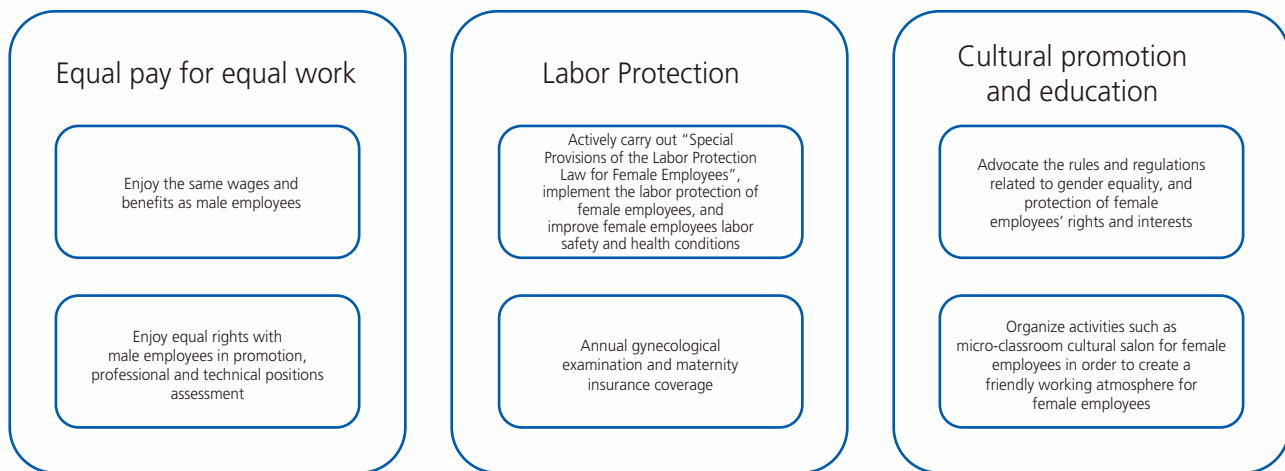


PEOPLE FOCUS

Diversity and inclusion

Please refer to the Group's official website for relevant policies on employee diversity and inclusion and protection of female rights.

The Group believes that a diverse and inclusive working environment can support employees to do their best in their career and personal level, thereby promoting the long-term development of the enterprise. The Group's labor union and female workers department are responsible for managing and assisting in matters related to protection of female employees' rights and interests, and ensuring the effective implementation of welfare policies such as breastfeeding leave, gynecological examination and maternity insurance. At the same time, the Group has included protection of the rights and interests of female employees in our Collective Employment Contracts, and regularly conducts control inspections on female rights and interests, and supports female employees to report non-compliance in a timely manner according to the "Protection of Female Employees' Rights and Interests". The female employees committee will supervise the implementation of rectification measures and safeguard the legitimate rights and interests of female employees in accordance with the law.



Protecting the rights and interests of female employees

Protecting Employees' Rights and Interests

The Group strictly abides by laws and regulations⁹ related to employment and labor standards, and creates an equal, diversified and inclusive working environment by formulating and improving a series of internal human resources management policies. During the year, we invited a third party to conduct a labor risk assessment to identify potential risks.

The Group has established the Labor Law Supervision Committee to publicize and supervise labor laws and regulations, protect the legitimate rights and interests of employees in accordance with the law, and build a harmonious and stable labor relationship. In case of labor disputes, the Group will deal with it in a timely manner according to the specific circumstances, such as the process of letters and visits.

During the year, the Group was not aware of any non-compliance with relevant laws and regulations that have a significant impact on the Group relating to compensation and dismissal, recruitment and promotion, working hours, leave, equal opportunity, anti-discrimination, and other benefits and welfare.

⁹ For laws and regulations related to protection of employees' rights and interests, please refer to the Laws and Regulations section of this report.

PEOPLE FOCUS

Remuneration and Benefits

The Group believes that good welfare benefits can fully motivate employees to develop their personal capabilities and enhance their sense of belonging to the working environment. On the basis of ensuring that the relevant remuneration and benefits comply with the requirements of the laws and regulations¹⁰ of the places where we operate, we continuously optimize and improve the welfare protection such as remuneration, insurance, subsidies and holidays, to attract, motivate and retain talents through competitive remuneration schemes, and regularly review the applicability of the remuneration system and appraisal system to continuously optimize the overall framework.

During the year, in extreme hot weather, the Group granted allowances for work in high temperature and cooling fees to employees of specific types of work, and additional high temperature allowances from June to September. In addition, the labor union and the operation department also visited relevant employees during working hours with high temperature.

TALENT RECRUITMENT

The Group adheres to the principle of “fairness, openness and equality” in talent recruitment and selection. Through diversified recruitment channels, the Group extensively attracts outstanding talents and provides employees with smooth promotion channel to achieve the goal of “making the best use of talents”, and forms a long-term and excellent talent reserve for the construction and development of smart ports.

In terms of recruitment, the Group starts to prepare the recruitment activities for fresh graduates from March to April every year, and officially commences activities through campus recruitment and unified recruitment in October. In terms of remuneration, the Group updates the appraisal system annually to more effectively manage the distribution of remuneration by refining the appraisal rules and setting target values.

In addition, the Group strictly follows the requirements of national laws and regulations¹¹ in the recruitment process of employees, and conducts special inspections during the year, and implements the corresponding requirements to its contractors to ensure the elimination of child labor or forced labor. During the year, the Group was not aware of any non-compliance with relevant laws and regulations that have a significant impact on the Group relating to preventing child and forced labor.

TALENT DEVELOPMENT

The Group recognizes that the development of talents is an important cornerstone of the Group. By formulating a series of talent management and training system documents, the Group defines the employee training channels and builds a high-quality talent team. During the year, we continued to improve the employee training system by dividing the talent team into three categories: i.e. management, technical talents and skilled talents and equipped each talents category with different training systems.

In terms of internal training, the Group has formulated the Internal Training Management Measures to regulate the management, course evaluation, expenses of internal trainers and other processes. The internal trainer team teaches practical experience through a variety of courses to achieve common improvement of employees. In terms of external training, the Group invites leading enterprises to carry out a series of training on digital transformation that cover digital transformation leadership, digital human resources management, digital concept output, etc., and provide targeted course training according to different ranks, laying a foundation for the Group’s digital transformation.

In order to improve the effectiveness of training, the Group also attaches great importance to the feedback of employees’ courses. After the training, a special QR code is set up for employees to provide feedback and evaluation which is carried out around the training content, the level of lecturers, courseware quality and other dimensions.

In 2022, the Group completed a total of 158,594 training hours with 6,141 employees¹².

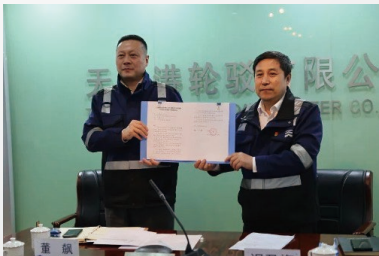
¹⁰ For laws and regulations related to talent remuneration, please refer to the Laws and Regulations section of this report.

¹¹ For laws and regulations related to talent recruitment, please refer to the Laws and Regulations section of this report.

¹² Employee training data include professional knowledge and skill training, occupational safety and health training and anti-corruption training.



PEOPLE FOCUS



Tianjin Port Tugboat Lighter Co., Ltd. entered into the Strategic Cooperation Framework Agreement on Enhancing the Business Skills Training of the Crew of Tianjin Port Tugboat Lighter Co., Ltd. with the Maritime Safety Administration of Northern Xinjiang, Tianjin University of Technology and Tianjin Branch of Bohai Property Insurance, to enhance the safety awareness, business capability and business level of the crew and maintain the safety of marine traffic within the Tianjin Port area.

EMPLOYEE CARE

The Group is committed to building a comprehensive care system for employees, maintaining close communication with employees through different means, and providing employees with all-round protection to release their worries.

Employee communication

- Organize workers congress every year. During the year, a total of 12 proposals were handled at the workers congress, with a satisfaction rate of 100%
- Formulate or renew collective contracts for employees every three years
- Listen to employees' feedback and expectations through employee symposiums, leadership mailbox, grass roots research, telephone, etc.
- Establish employee complaint channels and interview mechanism

Additional support

- Provide subsidies for employees and their families, including but not limited to critical illness subsidies and hospitalization visits
- Provide special condolences to employees in difficulties to help solve problems in work and life
- Optimize the configuration of infrastructure equipment, add waiting chairs and fitness equipment etc.
- Continue to care for employees' mental health through EAP (Employee Assistance Program)



At the newly upgraded EAP mental health service center, the trade union of Tianjin Port No. 1 Stevedoring Co. Ltd. held the EAP psychological group activity with the theme of "Keep Loving, Keep living", and hired professional lecturers to empower employees in the workplace. The mental health of employees was improved through four courses, namely professional assessment, sand table experience, interactive games and stress reduction activities.


質為先

Quality First

讓每一條線
都成為質量的保障

QUALITY FIRST

The core concept and practice of “Quality First” has been integrated into the Group’s production, operation and all business segments. Through the establishment of standardized management standards and procedures and a more comprehensive operating system, our quality management system has been gradually improved. The upgrade and innovation of technology also continue to empower the Group’s high-quality development, promote the realization of higher-level production capacity and efficiency, thus providing customers with more high-quality and reliable services.

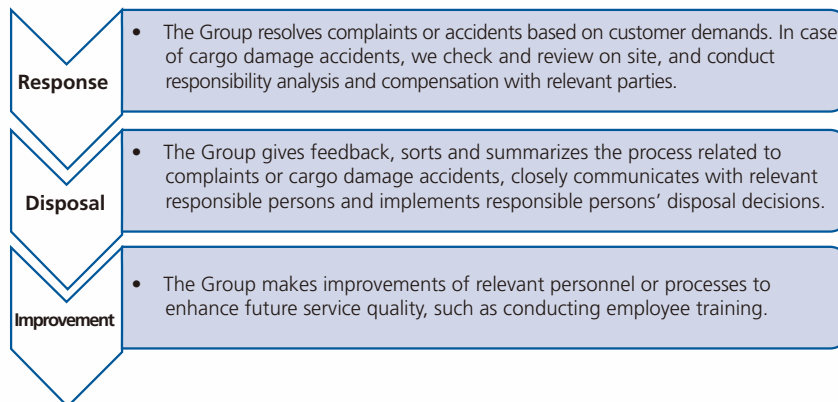
Relevant SDGs		Relevant Issues
	8.2 Positive contribution to productivity improvement through technology upgrading	<ul style="list-style-type: none"> • Smart Port • Innovation and Intellectual Property Rights • Product Health and Safety
	8.3 Promote development-oriented policies to support production activities, decent employment, entrepreneurship, creativity and innovation	

SERVICE RESPONSIBILITY

In 2022, the Group continued to abide by the strict quality control system, making it a solid foundation for us to cope with challenges in production and customer service. We strictly complied with national laws and regulations¹³ as well as national and industrial standards, formulated a sound management system for freight services, and implemented process management including dangerous goods operation. We conducted overall monitoring of cargo arrival, loading and unloading and storage during the whole process with all locations and time period covered and have established the Group-wide management standards and procedures on production safety and on-site operation, thereby achieving an orderly control of the on-site operations. In addition, the implementation of service responsibility and high-quality management also relies on the Group’s operating systems which cover quality, production and business organizations, and can be adjusted in response to the climate and the operating status of equipment and facilities to handle temporary problems caused by the production imbalance.

In 2022, a total of 16 subsidiaries and affiliates obtained GB/T 19001 quality management system certification. At the same time, the Group strictly implemented the responsibility of damage prevention management. During the year, we have fully achieved the loss prevention target of cargo damage and cargo error rate far below 0.012%. There were no major cargo damage accidents or malignant service quality accidents during the year, and there were no recall of sold or delivered products due to safety and health reasons in the past five years.

In order to continuously improve our service responsibility, the Group follows the following procedures to handle potential cargo damage accidents:



¹³ For laws and regulations related to product responsibility, please refer to the Laws and Regulations section of this report.

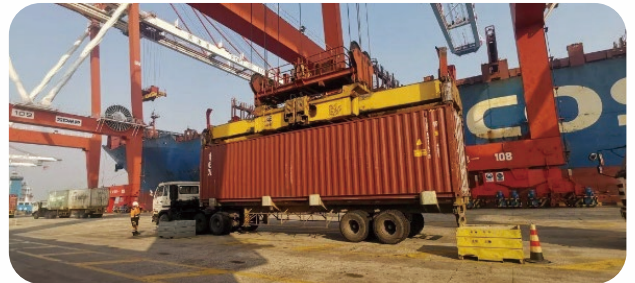
QUALITY FIRST

“Maritime Expressway-FAST” focused route

The high-density and high-quality “Maritime Expressway-FAST” focused routes have alleviated customers’ concerns about traffic conditions, accidents in transit, bad weather and other conditions. We actively provide our customers with more suitable transportation solutions, such as the “road-to-water” transportation method which can shorten the delivery time for a single customer from 12 days to 9 and a half days compared to road transportation.



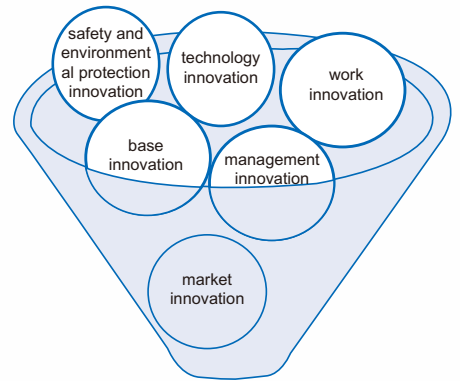
In addition, the Group continued to deepen the operation processes such as “unloading while loading”, further reduced auxiliary operation time, improved port operation efficiency and ship turnover efficiency, and helped improve service quality.



During the year, the Group was not aware of any violation on relevant laws and regulations¹⁴ that have a significant impact on the Group relating to health and safety, privacy issues and remedies for the provision of products and services. Our business does not involve advertising and product labelling and therefore it has no significant impact on our operations.

INTELLECTUAL PROPERTY RIGHTS PROTECTION

We have promulgated the “Innovation Management Measures” and the “Innovation Incentive Measures” to encourage employees to innovate and create a top-down atmosphere for all-staff innovation and all-fields innovation. The innovation leading group is composed of leaders in charge of each field and key persons in charge to coordinate and implement the Group’s innovation work.



The Group regularly holds promotion meetings for major innovation projects and establishes an expert review mechanism. At the end of the year, we conduct innovation activities selection at different levels, at which the innovation achievements of employees are linked to personal performance.

During the year, the Group encouraged our employees to conduct research and innovations through six areas, namely work innovation, operation innovation, market innovation, technology innovation, management innovation and safety and environmental protection innovation. We have promulgated the innovation management measures and established an innovation work leading group to be responsible for the innovation work of the Group, whose members are either functional team heads or key responsible persons. During the year, a total of 22 patents were granted.

At the same time, the Group respects and protects intellectual property rights, strictly complies relevant laws and regulations¹⁵ on intellectual property rights, and formulates the Management Measures for Patent to regulate and strengthen the patent work within the Group. Our subsidiaries and affiliates have set up patent departments with part-time and full-time patent personnel to continuously track and timely deal with relevant issues. Currently, the number of patent applications and authorizations has become an key performance indicator at the Group’s assessment system.

¹⁴ For laws and regulations related to product and service responsibility, please refer to the Laws and Regulations section of this report.

¹⁵ For laws and regulations related to intellectual property rights, please refer to the Laws and Regulations section of this report.



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Customer Respe




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服務深入客戶

CUSTOMER-ORIENTED

The Group adheres to the principle of “customer-oriented, service-oriented and win-win cooperation”. With customer satisfaction as the guide, we understand and respond to the needs of customers through multiple channels, fully respect and safeguard the interests of customers, and strive to provide customers with comprehensive, reliable and quality services.

Relevant SDGs	Relevant Issues
 8.2 Positive contribution to productivity improvement through technology upgrading	<ul style="list-style-type: none"> • Customer Satisfaction • Customer Privacy and Cybersecurity

CUSTOMER SATISFACTION

The Group attaches great importance to customers’ opinions and feedback. During the year, we added video conferencing and email channels on the basis of a number of established communication channels, mainly for closely communicating with customers on market conditions, vessel arrangements and feedback, so as to carry out targeted optimization.

The customer service center has set up a 24-hour service hotline. Customer service personnel provides standardized and high-quality complaint handling services, and are committed to maintaining customer satisfaction. In 2022, our customer satisfaction rate reached over 96%.

In 2022, the Group continued to carry out the “Four Thousand Actions”¹⁶ with the goal of improving quality and efficiency, further strengthening and implementing the Group’s service concept. We actively understood user needs, conducted in-depth research on customer difficulties, and explored and provided effective solutions.

New features of customer service
 In 2022, the Group held a seminar for social supervisors and also organized social personnel to visit the terminals for supervision. By inviting third-party personnel such as customers, drivers and cargo owners to visit the terminal, we are able to collect feedback on problems more directly, thereby further improving our service quality. During the year, two events were successfully held.

During the year, we carried out customer care and warmth-delivering activities with the theme of “delivering a smile, giving a greeting, delivering a cup of hot water and making a bowl of instant noodle” to let customers fully feel the warmth from the Group’s service .



Special Improvement Actions

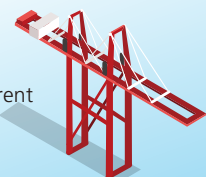
A special improvement working group for customer service was established to promote special actions, including on-site inspection, process optimization and service training to create more standardized and professional customer service.



Collecting Customer Feedback

We conducted special video visits to major customers, social supervisors and logistics fleets, collected customer opinions through questionnaires, and the satisfaction rate of return visits to feedback reached 100%.

¹⁶ “Four Thousand Actions” refers to travel thousands of miles, listen to thousands of tales, explore thousands of different solutions and serve thousands of households.



CUSTOMER-ORIENTED



Improving Business Efficiency

We promoted the online, paperless and digital business processes, and improved customer experience and service efficiency through smart services and digital empowerment.

ENSURING NETWORK INFORMATION SECURITY

The Group regards network information security with a high level of importance. On the basis of strict compliance with relevant laws and regulations¹⁷, the Group constantly improves the network information security management system. We have formulated a series of network security systems and implementation measures. In 2022, we further formulated a network security emergency plan.

In order to ensure the construction of smart ports, the Group strictly undertakes security protection measures, deeply implements the network security protection system, and adds network information security risk assessment in the preliminary planning, mid-term construction and post-operation and maintenance of key projects. According to the requirements of hierarchical protection, we entrusts a third-party agency to conduct network security assessment on the integrated container operating system, intelligent dispatch and command system, intelligent office system and comprehensive management and control system, and make targeted optimization and improvement based on the assessment results. In addition, we further improve and safeguarded network information security by establishing network security system, operating supervision platform, conducting security self-inspection and organizing emergency drills.

During the year, the Group formulated special security work plans at various special times, including organizing technical network security work during the Spring Festival, the National Day, the Winter Olympics and the Two Sessions. Through the establishment of the Group's network security supervision mechanism, we promoted the repair of 101 security breaches, and in the second half of the year, we mainly put forward 17 key tasks in terms of management capability, technical support and safety awareness to systematically promote the improvement of technology level. In addition, in order to improve the practical management capability of network security, we also successfully carried out network security and information work training, and completed 2 network security monitoring and drills.

ENSURING PRIVACY SAFETY



The Group is committed to safeguarding the security of customer information and privacy. On the basis of abiding by relevant laws and regulations¹⁸, the Group strictly implemented the Regulations on Customer Information and Personal Data Privacy Management, and regulated the basic principles of customer information management, personal data privacy protection and handling of violations. During the year, the Group did not have any complaints or incidents related to privacy safety.

¹⁷ For laws and regulations related to network information security, please refer to the Laws and Regulations section of this report.

¹⁸ For laws and regulations related to customer privacy safety, please refer to the Laws and Regulations section of this report.

UPHOLDING BUSINESS ETHICS

The Group adheres to the operating principles of fairness and honesty, strictly prohibits all unethical behaviours such as bribery or corruption, and also implements strict management of contraband and anti-smuggling of marine cargo. We regularly assess suppliers to ensure their compliance with relevant ethical requirements. We have formulated a series of internal policies on anti-corruption and set up a multi-channel whistle-blowing mechanism to regulate the behaviours of directors and employees and establish a culture of integrity within the Group.

Relevant SDGs		Relevant Issues
	12.6 Encourage the adoption of sustainable practices and incorporate sustainability information into the reporting cycle	<ul style="list-style-type: none"> Compliant Operation Supply Chain Management Contractor Management Contraband Management and Anti-smuggling of Marine Cargo
	16.5 Reduce corruption and bribery in all their forms 16.6 Establish an effective, responsible and transparent organization	<ul style="list-style-type: none"> Anti-corruption

COMPLIANT OPERATION

The Group strictly complies with national and local laws and regulations, formulates a sound compliance management mechanism and relevant employee training guidelines, and standardizes the management principles and basic ethics for employees in case of conflict of interest. The concept of misconduct such as anti-corruption, integrity management, anti-discrimination, anti-harassment and so on, and equal opportunities, fair competition and other concepts are integrated into every aspect of the Company’s daily governance and business operations. At the same time, through the establishment of a sound employee assessment and incentive system, the Group continuously strengthens the integrity of employees and enhances corporate integrity to strive to maintain the sustainable development of multilateral relations with customers, suppliers, contractors, partners, investors, government agencies and communities.

CONTRABAND MANAGEMENT AND ANTI-SMUGGLING OF MARINE CARGO

The Group adheres to strict regulations on the management of contraband and anti-smuggling marine cargo. The possibility of negative impact resulting from illegal marine activities on marine operations is minimized by cooperating with the Customs to crack down on marine cargo smuggling.

SUPPLY CHAIN MANAGEMENT

Supplier management is the foundation and guarantee for effective operations within the Group. Through effective supply chain management, the Group selects high-quality and reliable supplier resources, establishes strong cooperative relationships with suppliers that complied with business ethics, and timely identifies supplier-related risks and managed them, so as to deliver high-quality products and services to customers.

To this end, the Group has formulated a series of internal management policies such as the Supplier Evaluation Plan, the Quality Occupational Health and Safety Management and the Implementation Rules for Qualification Review Management and Evaluation Management of Contracting Companies to regulate the supplier access and evaluation mechanism. We have also established a number of communication channels for suppliers, including procurement platforms, WeChat, trade conferences, visits and telephone calls, to achieve efficient and close cooperation with suppliers.

The Group’s suppliers are mainly divided into three categories, namely sales suppliers, labor suppliers and port production and construction materials suppliers. In 2022, the Group signed contracts with a total of 656 materials suppliers, all of which were from China.



UPHOLDING BUSINESS ETHICS

Supplier Selection and Evaluation

The Group has established strict access for suppliers and required them to follow our "three simultaneity" management approach, that is, safety agreements and environmental protection agreements must be signed together with service agreements. We also inspect suppliers' environmental and social risks and their compliance through various channels at multiple points of time.

Before entering into an agreement, the Group will conduct due diligence on all suppliers to review their compliance with safety and environmental protection, and will refuse to cooperate with suppliers who have serious illegal acts in these areas.

The Group has stipulated corresponding evaluation methods and evaluation contents for different types of suppliers, and specifically managed their environmental and social risks to ensure the quality of products and services.

Due diligence on labor suppliers

Only entities that meet the port's labor qualifications and have higher safety awareness can conform to the cooperation requirements, and suppliers who commit serious violations in safety and environmental protection are rejected. Moreover, the Group has guidance on labor suppliers.

Environmental Protection Agreements

The Group conducts compliance and contract review on suppliers every year to check whether they cover environmental protection clauses during operation and in the safety agreement. After the agreement is signed, the Group will conduct subsequent inspection and evaluation on the supplier, and the evaluation results will be used as one of the important bases for whether to renew the contract in the second year.

	Sales supply chain	Labor supply chain	Supply chain of port production and construction materials
Products and Services	Provision of fuel oil to inbound vessels	Contract workers and outsourced workers	Supply of port production and construction materials
Supplier Evaluation Methods	<ul style="list-style-type: none"> The procurement team formulates the supplier evaluation mechanism and conducts regular evaluation and annual review and annual summary The leadership group conducts a comprehensive review of the summary to determine the supplier database for the next year 	<ul style="list-style-type: none"> The labor service center, as the labor supervision platform, provides basic guarantee for subordinate units to select labor bidding suppliers The labor service center undergoes regular evaluation, quarterly evaluation and annual evaluation on contractors 	<ul style="list-style-type: none"> Conduct monthly evaluation and annual comprehensive evaluation on suppliers The Supplier Management Committee determines the annual rating of each supplier based on the monthly evaluation and other relevant evaluation conditions, and takes corresponding management measures for suppliers rated in the next agreement year
Environmental and Social Risk Management	<ul style="list-style-type: none"> Formulate supplier contract standards with safety and environmental protection agreements, and define requirements of suppliers on quality, safety, environmental protection, corporate social responsibility, compliance, anti-corruption, etc. Suppliers who violate the "Anti-commercial Bribery Commitment" are disqualified from entering the supplier database 	<ul style="list-style-type: none"> Review the basic information of contractors, including registered capital, management scale, social credit, illegal and criminal records, etc. Establish a special inspection team to supervise and inspect contractors to ensure and protect the basic rights of employees 	<ul style="list-style-type: none"> Make comprehensive assessment on suppliers, including employment standards, production safety, environmental safety, service satisfaction, community responsibilities and ethics, etc. Suppliers who meet the requirements are required to submit quality certification documents for the supplied materials, which are reviewed by a special evaluation team

UPHOLDING BUSINESS ETHICS

ANTI-CORRUPTION

The Group adheres to the operating principle of fairness and integrity, and resolutely opposes all unethical behaviors such as corruption and bribery. The Discipline Inspection and Supervision Commissioner of the Group supervises and enforces accountability of the Group's personnel at all levels on the lawful performance of duties, ethical compliance, honest practice and adherence to ethics. All employees are supervised and inspected in accordance with the Administrative Measures for Employee Reward and Punishment.

Integrity Education

- Normalise anti-corruption education, publish anti-corruption policy guidance to senior management
- Strengthen anti-corruption education through videos, Wechat public account and cases
- Specialised training for discipline inspection cadres of subsidiaries and affiliates
- Group lecture for new employees, site visit at warning centre and anti-corruption talent training program

Strengthening Supervision

- 1 round of anti-corruption risk investigation
- 50 authority matters sorted out
- 89 key links involved
- 103 prevention and control measures developed

Whistle-blowing Mechanism

- An anonymous corruption reporting mechanism is in place
- Set up a working group to review the reported cases
- Ensure the confidentiality of the whistle-blower's personal information during the investigation
- Build reporting channels such as mail, visits and phone calls. A reporting hotline was set up

Declaration of Interests

- Implement employee management regulations to regulate the behaviour of directors and employees
- Directors and employees are required to avoid conflicts of interest as much as possible and disclose conflicts of interest in expected transactions or relationships
- If conflict of interest exists, it must be reported to the Group's relevant department well in advance

Highlights of anti-corruption initiatives

The Group organized anti-corruption trainings with contents tailored to characteristics of each subsidiary company and in various forms, including group learning and specialised training for junior discipline inspection and supervision personnel. For middle-level management, the Group focused on case-study sharing of corrupt behaviour. In 2022, the Group conducted anti-corruption training sessions and lectures to enhance employees' awareness of anti-corruption, put an end to corruption and prevent corporate management risks caused by corruption in practical actions. During the year, the Group completed a total of 68 anti-corruption training sessions, with a total of 9,010 hours and 6,128 employees.

The Group was not aware of any non-compliance with relevant laws and regulations that have a significant impact on the Group relating to bribery, extortion, fraud and money laundering.



PRACTICING PUBLIC WELFARE

The Group always adheres to the concept of “Giving back to the community”, actively participates in community investment, and is committed to facilitating development of the communities in which it carries out the business.

Relevant SDGs



- 1.1 Eradicate extreme poverty
- 1.5 Build resilience for the needy and vulnerable groups to reduce their exposure and vulnerability to extreme climate-related events and other economic, social and environmental impacts

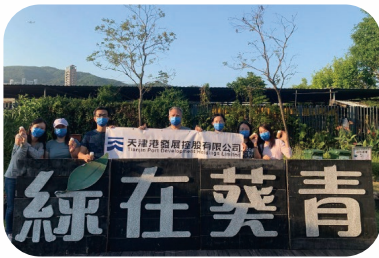
Relevant Issues

- Community Engagement
- Community Opinion

CHARITY RECOGNITION

During the year, the Group was awarded the “Caring Company logo” by The Hong Kong Council of Social Service, which was a recognition of the Group’s mission to foster cooperation between business and social partners, promote enterprises to fulfill their social responsibilities, and encourage business and public institutions to care for the community, employees and the environment, so as to achieve joint sustainable development.

ENVIRONMENTAL PROTECTION



The Group participated in the “Green in Kwai Tsing” volunteer project under the “Green Community” scheme of the Environmental Protection Department of Hong Kong to assist in waste recycling and classification and environmental education activities in the area and to promote carbon reduction in daily life.

POVERTY ALLEVIATION



The Group’s Hong Kong office joined hands with the New Life Psychiatric Rehabilitation Association to organize and participate in food packaging and donate food to people in need, so as to show care.



A number of young volunteers from the Group’s Xianchuang Caring Team from Tianjin Port Tugboat Company went to the Xiangyu Autism Rehabilitation Center to accompany the children of the rehabilitation center to attend classes and organize fun activities.

APPENDIX

LAWS AND REGULATIONS

For each ESG aspect, the Group and its subsidiaries implement relevant internal policies to ensure that their business operations comply with all applicable laws and regulations. The applicable laws and regulations are as follows:

Aspects	Applicable Laws and Regulations	Corresponding Section
Emission	<ul style="list-style-type: none"> Environmental Protection Law of the PRC Marine Environment Protection Law of the PRC Water Pollution Prevention and Control Law of the PRC Law of the PRC on the Prevention and Control of Atmospheric Pollution Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste Law of the PRC on the Prevention and Control of Pollution from Environmental Noise Regulations of the People's Republic of China on the Safety Operation of Ships and for Pollution Prevention Tianjin Air Pollution Control Regulations Emission Pollution of Motor Vehicles and Non-road Mobile Machinery in Tianjin Emergency Plan for Heavy Pollution Weather in Tianjin 	Environmental Commitment – Emission Control Environmental Commitment – Environmental Management System
Use of Resources	<ul style="list-style-type: none"> Energy Conservation Law of the PRC Measurement Law of the PRC Water Law of the PRC Regulations of Tianjin Municipality on Energy Conservation Regulations of Tianjin on Water Conservation Water Consumption Quota for Industrial Products in Tianjin Water Consumption Quota for Urban Domestic Water in Tianjin Tianjin Agricultural Water Quota 	Environmental Commitment – Resource Conservation Environmental Commitment – Environmental Management System
The Environment and Natural Resources	<ul style="list-style-type: none"> Cleaner Production Promotion Law of the PRC Emergency Response Law of the People's Republic of China Environmental Impact Assessment Law of the PRC Regulation of the People's Republic of China on Flood Control Tianjin Clean Production Promotion Regulations Regulations of Tianjin Municipality on Ecological Environmental Protection Measures for Tianjin Municipality to Implement the Emergency Response Law of the People's Republic of China General Contingency Plan for Emergencies in Tianjin 	Environmental Commitment – Tackling Climate Change Environmental Commitment – Ecological Protection Environmental Commitment – Environmental Management System

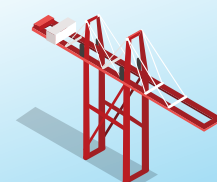


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Aspects	Applicable Laws and Regulations	Corresponding Section
Employment	<ul style="list-style-type: none"> • Labor Law of the PRC • Labor Contract Law of the PRC • Law of the PRC on the Protection of Disabled Persons • Law of the PRC on the Protection of Women's Rights and Interests • Trade Union Law of the PRC • Special Provisions on the Labor Protection of Female Employees • Regulations on the Implementation of Labor Contract System in Tianjin • Provisions on Employment of Disabled Persons in Tianjin • Management Methods for Collection and Use of Employment Security Funds for the Disabled in Tianjin • Tianjin Regulations on the Protection of Women's Rights and Interests • Employment Ordinance of Hong Kong • Employees' Compensation Ordinance of Hong Kong • Sex Discrimination Ordinance of Hong Kong • Race Discrimination Ordinance of Hong Kong • Disability Discrimination Ordinance of Hong Kong 	People Focus – Labor Management People Focus – Employee Care
Health and Safety	<ul style="list-style-type: none"> • Production Safety Law of the PRC • Law of the PRC on the Prevention and Control of Occupational Diseases • Provisions on the Supervision and Administration of Occupational Health in the Workplace • National Plan for Prevention and Control of Occupational Diseases (2021-2025) • Tianjin Safety Production Regulations • Regulations of Tianjin Municipality on the Responsibility System for Safety in Production • Regulations on Safety Management of Hazardous Chemical Enterprises in Tianjin • Tianjin Special Equipment Safety Regulations • Measures for the Investigation and Treatment of Hidden Dangers in Work Safety • Occupational Safety and Health Ordinance of Hong Kong • Employees' Compensation Ordinance of Hong Kong 	People Focus – Occupational Health and Safety

APPENDIX

Aspects	Applicable Laws and Regulations	Corresponding Section
Labor Standards	<ul style="list-style-type: none"> • Law of the PRC on the Protection of Minors • Provisions on Special Protection for Juvenile Workers • Provisions on the Prohibition of Using Child Labor • Employment of Children Regulations of Hong Kong • Employment Ordinance of Hong Kong • Employees' Compensation Ordinance of Hong Kong • Occupational Safety and Health Ordinance of Hong Kong • Personal Data (Privacy) Ordinance of Hong Kong • Minimum Wage Ordinance of Hong Kong • Sex Discrimination Ordinance of Hong Kong • Race Discrimination Ordinance of Hong Kong • Disability Discrimination Ordinance of Hong Kong 	People Focus – Labor Management People Focus – Talent Recruitment
Product Responsibility	<ul style="list-style-type: none"> • Port Law of the PRC • Product Quality Law of the PRC • Production Safety Law of the PRC • Law of the PRC on the Protection of Consumer Rights and Interests • Regulations on the Safety Management of Hazardous Goods at Ports • International Maritime Dangerous Goods Regulations • Intellectual Property Law of the PRC • Cybersecurity Law of the People's Republic of China • Regulations of the People's Republic of China on the Security Protection of Computer Information System • Patent Law of the PRC • Personal Data (Privacy) Ordinance of Hong Kong 	People Focus – Dangerous Goods Management Quality First – Service Responsibility Quality First – Intellectual Property Rights Protection Customer Oriented – Ensuring Network Information Security Customer Oriented – Ensuring Privacy Safety
Anti-corruption	<ul style="list-style-type: none"> • Criminal Law of the PRC • Anti-Unfair Competition Law of the People's Republic of China • Supervision Law of the PRC • Prevention of Bribery Ordinance of Hong Kong • Competition Ordinance of Hong Kong 	Upholding Business Ethics



APPENDIX

PERFORMANCE DATA SUMMARY

Environmental Management

	2022	2021	2020
Resource Consumption			
Electricity (kWh)	317,598,000	327,360,000	325,440,000
Diesel (tonnes)	27,306	31,012	33,800
Gasoline (ton)	191	250	306
LNG (tonnes)	2,942	3,520	3,560
Natural gas (m ³)	43,463	59,000	57,000
Heat (GJ)	5,953	5,953	32,057
Water resources (tonnes)	2,769,098	2,931,323	3,027,300
EMISSION			
Greenhouse Gas Emissions¹⁹			
Total GHG Emissions (tCO ₂ e)	267,642	417,484	427,512
Scope 1: Direct emissions (tCO ₂ e)	85,861	108,489	117,454
Scope 2: Indirect emissions (tCO ₂ e)	181,781	308,995	310,058
Exhaust Gas			
Sulphur oxides (tonnes)	126	141	126
Nitrogen oxides (tonnes)	827	902	855
Waste water			
Wastewater discharge (tonnes)	800,000	431,542	380,000
Waste			
Hazardous waste (tonnes)	130	282	248
Non-hazardous waste (tonne)			
– Waste wire rope (tonnes)	1,202	1,478	1,201
– Waste cable (tonnes)	3.13	4.44	6.57
– Waste tires (pieces)	4,144	4,770	2,906

¹⁹ **Description of greenhouse gas emission calculation methods:**

The calculation methods and emission factors of greenhouse gas emissions are based on the “How to prepare an ESG Report — Appendix 2: Reporting Guidance on Environmental KPIs” issued by HKEX and the “Guidelines for Accounting and Reporting Greenhouse Gas Emissions from Enterprises in Other Industries (Trial)” issued by the National Strategy Research on Climate Change and the International Cooperation Center. Global warming potential is referenced from the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

APPENDIX

Staff Management

	2022	2021	2020
Workforce Distribution			
Total number of full-time employees	6,141	7,545	7,637
Geographical distribution			
Local ²⁰	6,140	7,545	7,635
Non-local	1	0	2
Age Distribution			
≤ 25	113	42	40
26-35	804	852	934
36-45	2,291	2,478	2,413
46-55	1,891	2,801	3,002
≥ 56	1,042	1,372	1,248
Gender Distribution			
Male	4,735	6,084	6,206
Female	1,406	1,461	1,431
Position Level Distribution			
Senior Management	127	152	133
Middle Management	878	906	865
General staff	5,136	6,487	6,639

²⁰ Employees in Hong Kong and Tianjin, China are collectively referred to as local employees.



APPENDIX

	2022	2021	2020
Employee turnover rate²¹	10%	6%	9%
Geographical distribution			
Local	10%	6%	9%
Non-local	100%	0%	0%
Age Distribution			
≤ 25	2%	10%	8%
26-35	7%	7%	8%
36-45	3%	2%	3%
46-55	8%	6%	6%
≥ 56	30%	11%	29%
Gender Distribution			
Male	10%	6%	10%
Female	7%	6%	6%
Position Level Distribution			
Senior Management	18%	13%	30%
Middle Management	3%	4%	6%
General staff	11%	6%	9%
Distribution of resignation reasons²²			
Resignation	12%	7%	4%
Dismissal	2%	1%	1%
Retirement	72%	66%	71%
Transfer to non-listed companies	11%	26%	19%
Others	3%	1%	5%

²¹ Turnover rate of each category = number of resigned employees of the category during the year/total number of employees of the category as at the end of the year.

²² The proportion of the reasons for resignation refers to the proportion of the number of employees who resigned due to a certain reason in the total number of employees who resigned during the year.

APPENDIX

	2022	2021	2020
Staff training²³			
Total training hours of employees	158,594	163,564	308,231
Average training hours per employee	26	22	40
By gender			
Male	26	21	41
Female	24	23	39
By Position Level			
Senior Management	114	143	41
Middle Management	45	50	41
General staff	20	15	40
Percentage of employees trained			
By gender			
Male	100%	100%	100%
Female	100%	100%	99.8%
By Position Level			
Senior Management	100%	100%	99.2%
Middle Management	100%	100%	100%
General staff	100%	100%	100%
Total hours of occupational safety and health training	9,212	13,037	10,200
Total person-times of occupational safety and health training	147,763	108,162	104,326
Total hours of anti-corruption training	9,010	6,758	7,590
Total person-times of anti-corruption training	6,128	2,360	1,698
Number of anti-corruption training participants by position level			
Senior Management	125	143	121
Middle Management	881	972	763
General staff	5,122	1,245	814
Health and Safety			
Occupational Safety and Health Performance			
Number of work-related injuries	0	1	0
Lost days due to work-related injury	0	22	0
Number of work-related fatalities	0	0	0

²³ Employee training data include professional knowledge and skills training, occupational safety and health training and anti-corruption training.



APPENDIX

CONTENT INDEX

Indicators	HKEX ESG Reporting Guide Requirements	Section/Remarks
A. ENVIRONMENTAL		
Aspect A1: Emissions		
General Disclosure	Relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste: (a) the Policy; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	Environmental Commitment – Emission Control
KPI A1.1	The types of emissions and respective emissions data.	Environmental Commitment – Air Emission Management Environmental Commitment – Sewage Management Performance Data Summary
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Commitment – Greenhouse Gas Emissions Performance Data Summary
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Commitment – Waste Management Performance Data Summary
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Commitment – Waste Management Performance Data Summary
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	Environmental Commitment – Air Emission Management Environmental Commitment – Sewage Management
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Environmental Commitment – Waste Management

APPENDIX

Indicators	HKEX ESG Reporting Guide Requirements	Section/Remarks
A. ENVIRONMENTAL		
Aspect A2: Use of Resource		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Environmental Commitment – Resource Conservation
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in ' 000s) and intensity (e.g. per unit of production volume, per facility).	Environmental Commitment – Energy Management Performance Data Summary
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental Commitment – Water Resources Management Performance Data Summary
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Environmental Commitment – Construction of A Green Port Environmental Commitment – Energy Management Environmental Commitment – Energy Saving Measures and Technology Application
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Environmental Commitment – Water Resources Management
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	The Group's business operation does not consume material packaging materials.
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimizing the issuers' significant impact on the environment and natural resources.	Environmental Commitment – Tackling Climate Change Environmental Commitment – Ecological Protection Environmental Commitment – Environmental Management System
KPI A3.1	Description of significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental Commitment – Construction of A Green Port Environmental Commitment – Ecological Protection
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Environmental Commitment – Tackling Climate Change
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Environmental Commitment – Tackling Climate Change



APPENDIX

Indicators	HKEX ESG Reporting Guide Requirements	Section/Remarks
B. SOCIAL		
Aspect B1: Employment		
General Disclosure	Relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare: (a) the policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	People Focus – Labor Management People Focus – Talent Recruitment People Focus – Employee Care
KPI B1.1	Total workforce by gender, employment type (for example, full-or part-time), age group and geographical region.	People Focus – Staff Composition Performance Data Summary
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Performance Data Summary
Aspect B2: Health and Safety		
General Disclosure	Relating to providing a safe working environment and protecting employees from occupational hazards: (a) the policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	People Focus – Occupational Health and Safety
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Performance Data Summary
KPI B2.2	Lost days due to work injury.	Performance Data Summary
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	People Focus – Occupational Health and Safety
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	People Focus – Talent Development
KPI B3.1	By gender and employee category (e.g. senior management, Percentage of employees trained by middle management Percentage.	Performance Data Summary
KPI B3.2	By gender and employee category, each employee Average training hours completed.	Performance Data Summary

APPENDIX

Indicators	HKEX ESG Reporting Guide Requirements	Section/Remarks
B. SOCIAL		
Aspect B4: Labor Standards		
General Disclosure	Relating to preventing child and forced Labor: (a) the policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	People Focus – Talent Recruitment
KPI B4.1	Description of measures to review employment practices to avoid child and forced Labor.	People Focus – Talent Recruitment
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	People Focus – Talent Recruitment During the year, no non-compliance was reported.
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Upholding Business Ethics – Supply Chain Management
KPI B5.1	Number of suppliers by geographical region.	Upholding Business Ethics – Supply Chain Management
KPI B5.2	Description of practices relating to engaging suppliers. Number of suppliers where the practices are being implemented, and How practices are implemented and monitored.	Upholding Business Ethics – Supply Chain Management
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Upholding Business Ethics – Supply Chain Selection and Evaluation
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Upholding Business Ethics – Supply Chain Selection and Evaluation



APPENDIX

Indicators	HKEX ESG Reporting Guide Requirements	Section/Remarks
B. SOCIAL		
Aspect B6: Product Responsibility		
General Disclosure	relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress: (a) the policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	Quality First – Service Responsibility
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Quality First – Service Responsibility
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Customer Oriented – Customer Satisfaction
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Quality First – Intellectual Property Rights Protection
KPI B6.4	Description of quality assurance process and recall procedures.	Quality First – Service Responsibility
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Customer Oriented – Ensuring Privacy Safety
Aspect B7: Anti-corruption		
General Disclosure	Relating to bribery, extortion, fraud and money laundering: (a) the policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer information.	Upholding Business Ethics – Anti-corruption
KPI B7.1	during the reporting period Number of concluded legal cases regarding corrupt practices Litigation results.	Upholding Business Ethics – Anti-corruption
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Upholding Business Ethics – Anti-corruption
KPI B7.3	Description of anti-corruption training provided to directors and employees.	Upholding Business Ethics – Anti-corruption
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Practicing Public Welfare
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, Labor needs, health, culture, sport).	Practicing Public Welfare
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Practicing Public Welfare