PORT OF ANPING

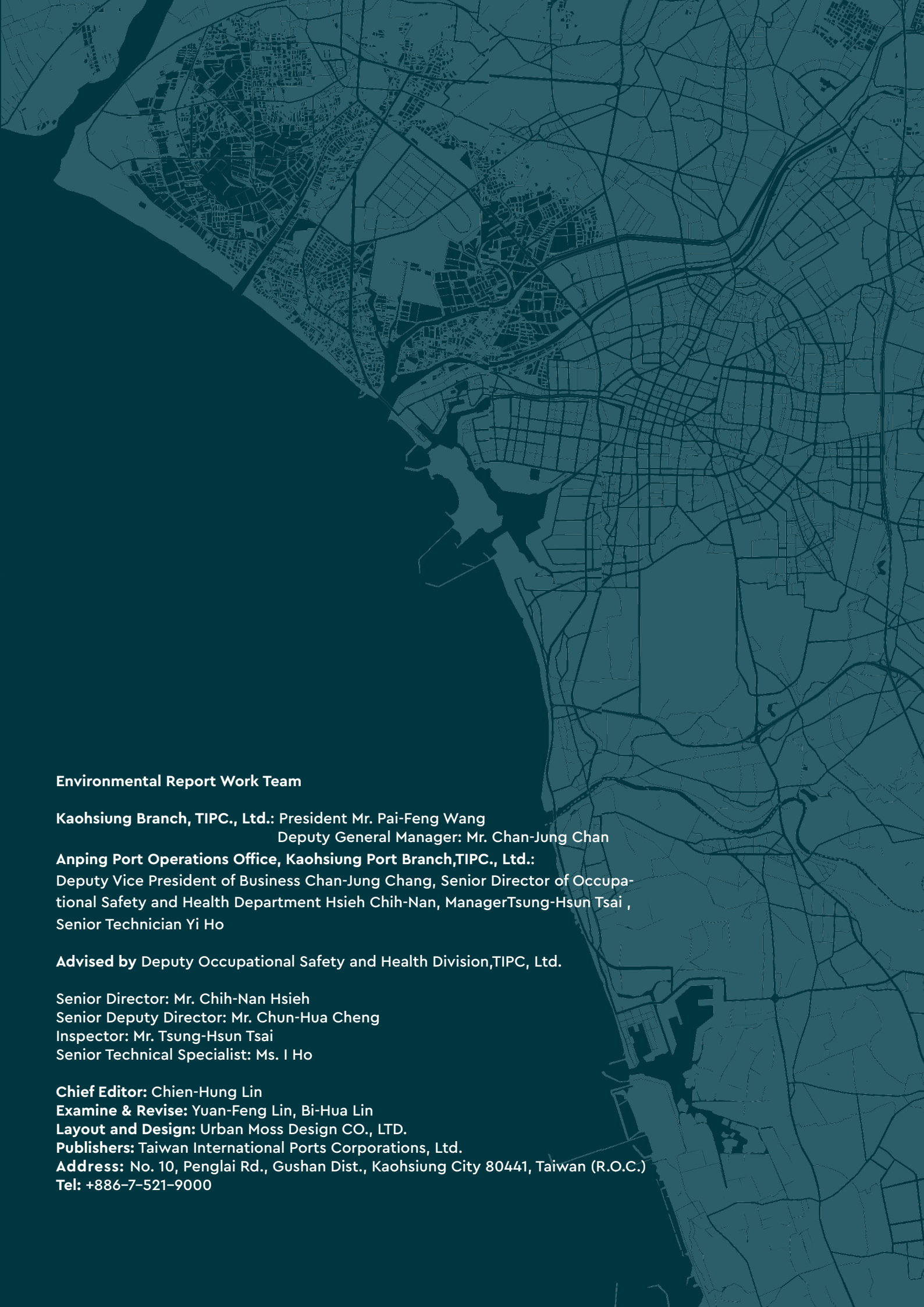
ENVIRONMENTAL REPORT

TAIWAN INTERNATIONAL PORTS CORPORATION, LTD.

TIPC

2025

Port of Anping
▪ T A I W A N ▪



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Environmental Policy

Taiwan International Ports Corporation
Environmental Policy

"Leverage innovation effectively to connect and communicate with global trade flows. Mature into a world-class port management group" is the vision of Taiwan International Ports Corporation (TIPC). TIPC manages and operates commercial ports in Taiwan and is engaged in maritime transport related services, free trade zones, and the development of relevant tourism and recreational projects.

While TIPC pursues business growth, we are well-aware of the importance of our social responsibility, which is to ensure both environmental and economic sustainability. With the goal to establish green and sustainable ports, we will proactively identify environmental risks that may be associated with our activities and manage the risks accordingly to minimize the environmental impacts.

We commit to:

1. Implement and follow through with the Green Port Policy to establish extraordinary world-class ports.
2. Comply with applicable environmental regulations to fulfill corporate environmental responsibility.
3. Execute pollution prevention, monitoring, and control mechanism to enhance environmental quality in and around port areas.
4. Reinforce environmental education to cultivate environmental awareness among employees.
5. Strengthen the communication with local communities, and pursue sustainable development for both the ports and the cities where we are operating.

Date: 2025 / 10 / 22

Joe Y. Chou
Chairman of TIPC

Date: 2025 / 10 / 22

Chin-Jung Wang
President of TIPC

Port of Kaohsiung
Environmental Policy

Environmental Policies
Port of Kaohsiung

The port of Kaohsiung is the lifeblood of Taiwan's economic development and plays an important role in the world trade. We are well aware of the need to balance the prosperity of the port with the ecological environment, so that the port and the environment can be developed in a harmonious manner to ensure the sustainable development of the port of Kaohsiung.

In order to express our values towards the environment, the Port of Kaohsiung, Taiwan International Ports Corporation, has established the following environmental policies, incorporating the concept of environmental friendliness into the focus of operation and development, and striving to make Kaohsiung port a model of green port.

- **Fully apply the environmental management system; promote sustainable development of the green port.**
- **Follow environmental laws and regulations; endeavor to fulfill corporate social responsibility initiatives.**
- **Provide appropriate environmental education and training; enhance the environmental awareness and skills of our employees.**
- **Continue environmental monitoring and pollution control; reduce energy consumption, carbon emissions, and environmental load.**
- **Disclose environmental information regularly; establish a bridge of communication between the inner and outer port.**
- **Promote community participation ; co-create a friendly port-city environment.**

President of Port of Kaohsiung, TIPC Wang, Pai-Fang

Date 5 / 5 /2025

Port of Kaohsiung, Taiwan International Ports Corporation, LTD. No.62.Linhai 2nd Road, Gushan District, Kaohsiung, Taiwan, R.O.C

Port of Anping
Environmental Objectives

Environmental Objectives
Port of Anping

To implement the commitments of Kaohsiung Port environmental policy, the following environmental objectives are set based on the ten major environmental issues from the port.

Improve Port Air Quality
Continuously monitor air quality, establish Port Air Quality Control Zones, and strengthen environmental patrols to track and manage pollution sources.

Prevent Fugitive Dust Emissions
Enhance public awareness and collaborate with local authorities to inspect and ensure operators implement effective dust suppression measures.

Reduce Cargo Spillage
Reinforce operational control and self-management at terminals to prevent overloading and cargo leakage.

Monitor Marine and Terrestrial Ecology
Conduct ecological surveys and monitoring of marine and land areas to assess the environmental impact of development on port ecosystems.

Enhance Vessel Wastewater Management
Ensure proper treatment of oily bilge water and wastewater from vessels, with effective control of discharge flow and long-term water quality monitoring.

Reduce Bunkering Pollution
Ensure oil tankers entering the port meet emissions standards and follow standardized fueling procedures to reduce air, marine, and dock pollution.

Respond to Climate Change
Conduct regular greenhouse gas inventories, enhance energy-saving measures, and identify key emission sources within the port area.

Reduce Vessel Waste
Promote shipboard waste reduction, ensure proper waste handling, and strengthen recycling and resource reuse.

Strengthen Dangerous Goods Handling and Storage
Implement hazardous materials storage plans and conduct regular inspections of high-risk cargo to ensure operator compliance with safety protocols.

Mitigate Port Noise
Monitor port noise levels and improve noise control measures for port operations and transport activities.

The President, Port of Kaohsiung, TIPC is responsible for the implementation, maintenance and communication of the environmental objectives. To fulfil commitments, the objectives and corresponding action plans are reviewed and adjusted to the condition of the Port.

President of Port of Kaohsiung, TIPC Wang, Pai-Feng

Date 5 / 5 /2025

Anping Port Branch Office, Port of Kaohsiung,
Taiwan International Ports Corporation, LTD.

No.25, Xingang Rd., South Dist., Tainan City 702028, Taiwan (R.O.C.)

01

Message from Port of Kaohsiung, TIPC

In recent years, the global awareness of environmental sustainability has significantly increased, prompting ports worldwide to incorporate sustainable development principles into their strategic planning. Through comprehensive management strategies, tangible infrastructure improvements, and compliance with international regulations, ports aim to mitigate environmental and ecological impacts throughout all stages—from construction to operation.

The concept of a Green Port represents an evolution beyond traditional port environmental practices. It emphasizes not only economic efficiency, but also the reduction of pollution, lower energy consumption, and the restoration of surrounding ecosystems. Furthermore, green port development underscores the importance of integrating the port with local community interests—supporting regional tourism, enhancing public access, and achieving a balanced model that respects economic, environmental, and social sustainability.

As one of Taiwan's seven major international commercial ports, Port of Anping continuously promotes the dual mission of port operations and tourism development. While pursuing economic growth, we also recognize our responsibility as a port management authority to safeguard and enhance the port environment. This includes comprehensive efforts in both marine and land-based environmental maintenance, the cultivation and upkeep of green spaces, and initiatives to beautify the port landscape.

Environmental planning, pollution prevention, energy conservation, carbon reduction, the adoption of renewable energy, promotion of community-friendly practices, and low-carbon development are all integral components of our long-term sustainability strategy. By minimizing the environmental footprint of port operations, we are committed to fostering a harmonious coexistence between the port and the city. This collaborative vision will allow Port of Anping to realize its goal of becoming a truly green and inclusive port, advancing hand-in-hand with the community it serves.

President of Port of Kaohsiung
Taiwan International Ports Corporation, Ltd


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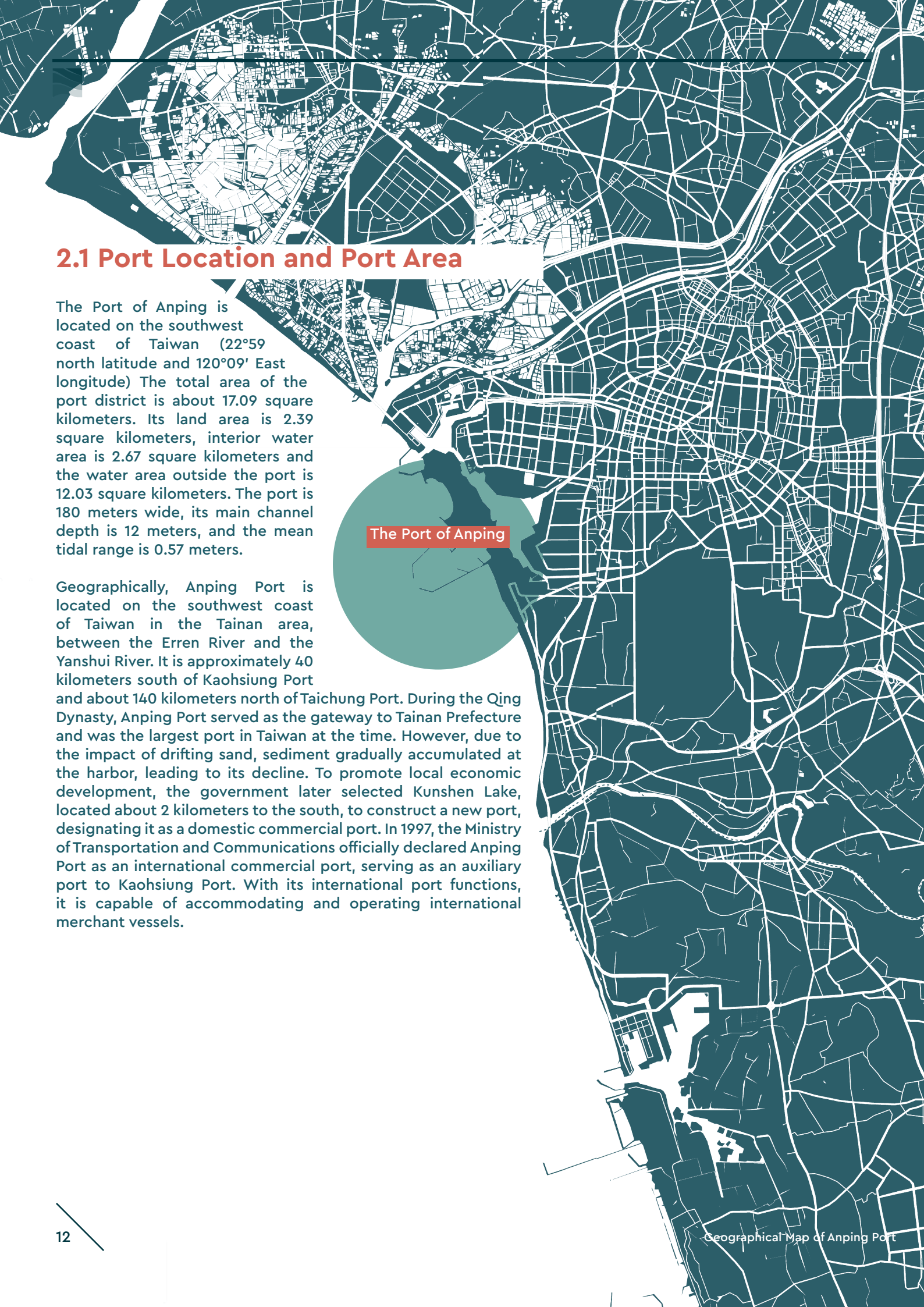
02

Port Profile

2.1 Port Location and Port Area

The Port of Anping is located on the southwest coast of Taiwan (22°59 north latitude and 120°09' East longitude) The total area of the port district is about 17.09 square kilometers. Its land area is 2.39 square kilometers, interior water area is 2.67 square kilometers and the water area outside the port is 12.03 square kilometers. The port is 180 meters wide, its main channel depth is 12 meters, and the mean tidal range is 0.57 meters.

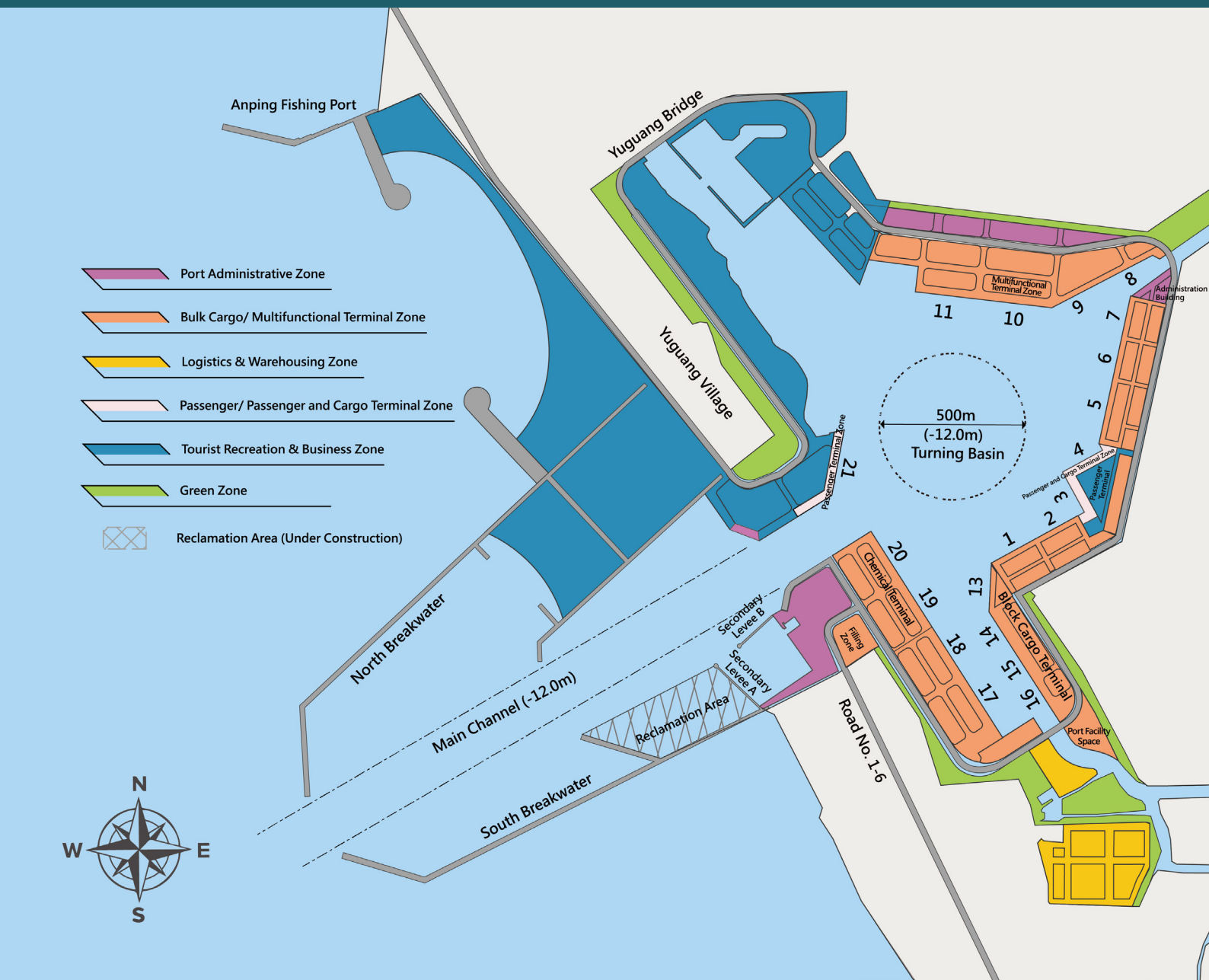
Geographically, Anping Port is located on the southwest coast of Taiwan in the Tainan area, between the Erren River and the Yanshui River. It is approximately 40 kilometers south of Kaohsiung Port and about 140 kilometers north of Taichung Port. During the Qing Dynasty, Anping Port served as the gateway to Tainan Prefecture and was the largest port in Taiwan at the time. However, due to the impact of drifting sand, sediment gradually accumulated at the harbor, leading to its decline. To promote local economic development, the government later selected Kunshen Lake, located about 2 kilometers to the south, to construct a new port, designating it as a domestic commercial port. In 1997, the Ministry of Transportation and Communications officially declared Anping Port as an international commercial port, serving as an auxiliary port to Kaohsiung Port. With its international port functions, it is capable of accommodating and operating international merchant vessels.



Geographical Map of Anping Port

2.2 Legal Status and Port Operators

To promote modernized commercial port management system reforms, The Taiwan International Ports Corporation, Ltd. Establishment Act was promulgated on November 9, 2011, Taiwan amended the Commercial Port Law on December 28, 2011. It was then decided in March 2012 that the government should be separated from the enterprise for management of the ports. Public entities that used to manage the ports, including: Kaohsiung Harbor Bureau, Taichung Harbor Bureau, Keelung Harbor Bureau and Hualien Harbor Bureau, are integrated into a corporation(Taiwan International Ports Corporation, TIPC) to reduce legal and institutional restrictions on commercial port operations, enhance the ability of ports to respond to market changes, and increase their competitiveness. After the transformation, management of the Port of Kaohsiung is now the responsibility of the Kaohsiung Branch of TIPC. The Southern Taiwan Service Center of Maritime and Port Bureau (MPB), Ministry of Transportation and Communications (MOTC) will be in charge of navigation and management of issues related to public authority.



2.3 Commercial Activities

The Port of Anping currently boasts 20 constructed docks. Among them, two are dedicated chemical docks exclusively for CHIMEI Corporation. The total length of the docks is 3,726 meters. The types of docks include those for general cargo, passenger and cargo, chemicals, and bulk cargo.

Major Commercial Activities and Cargo Handling at the Port of Anping

Commercial Activities	
Aggregates (sand, gravel.)	Marinas / Leisure
Chemical industry	General manufacturing
Storage and packaging	Refrigerated cargo
Cruise industry	
Cargo Handling	
Dry bulk	Liquid bulk (non-oil)
Green energy machine	Perishable goods
Ro-Ro	General cargo

2.4 Main Cargoes

In 2024, the main imported cargo at Anping Port was machinery, making up 85.58%, followed by cement (7.46%), chemicals and edible oils (3.89%), and cement-related products (1.63%). On the export side, machinery remained dominant at 87.22%, with gravel at 10.62%.

In 2023, the import mix was more diverse. The top items were cement (45.59%), chemicals and edible oils (28.97%), cement products (7.90%), and machinery (7.58%). Other imports included ores, containers, and coal. Exports that year were led by machinery (40.56%), gravel (27.12%), and chemicals and edible oils (23.18%).

These figures reflect a shift toward machinery-related logistics in 2024 and a decrease in construction-related materials compared to 2023. Gravel remains a consistent export, supporting regional infrastructure needs.

Main Cargoes of Port of Anping	
Cement	Chemicals/Edible Oils
Coal	International Container Cargo
Ore	Iron
Gravel	Machinery
Cement Materials / Products	Gypsum

Source: Anping Port Branch Office

2.5 Port Business

The cargo handling volume is charged based on the larger value between measurement tons and weight tons, whereas the cargo throughput is calculated in weight tons. In 2024, the major cargo handled consisted of offshore wind power components (accounting for 85.58% of import cargo), whose measurement tons are approximately 40 times higher than their weight tons. This resulted in substantial annual increases in both cargo handling volume and throughput.

Port of Anping Business Statistics, 2023–2024

Service Category		2023	2024	Difference between 2023 and 2024	
				Amount	%
Incoming and Outgoing Ships	Vessels	1,675	1,670	-5	-0.30%
	Gross ton	10346971	15096897	4,749,926	45.91%
Volume of Cargo Handled	Dry bulk and groceries (Revenue ton)	644933	12200105	11,555,172	1791.69%
	Pipeline cargo (Revenue ton)	1010792	858991	-151,801	-15.02%
	Total (Revenue ton)	1655725	13059096	11,403,371	688.72%
Volume of Imports & Exports	Imports (ton)	545256	567114	21,858	4.01%
	Exports (ton)	99221	73801	-25,420	-25.62%
	Domestic(ton)	842446	5439659	4,597,213	545.70%
	Total(ton)	1486923	6080574	4,593,651	308.94%
Incoming and Outgoing Passenger	Domestic line (number)	13954	0	-13,954	-100.00%
	International line (number)	0	0	0	0.00%
	Total (number)	13954	0	-13,954	-100.00%

Source: Annual Statistical Report, TIPC, 2023–2024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Environmental Management

3.1 Organizational Structure

In addition to being overseen by the Anping Port Operations Office of the Kaohsiung Branch, Taiwan International Ports Corporation, Ltd., the environmental management of the Anping Port area is governed by the Commercial Port Law and the Marine Pollution Control Act, under which different agencies are assigned distinct responsibilities. The Anping Port Operations Office is responsible for environmental issues related to port operation and management. The Southern Navigation Center, Maritime Port Bureau, MOTC is in charge of environmental matters involving the exercise of public authority. The Tainan City Environmental Protection Bureauis specifically responsible for the environmental issues regulated under the Marine Pollution Control Act.
Within the Anping Port Operations Office, the primary department responsible for environmental management is the Harbor Management Section. Its scope of responsibilities includes port safety and emergency response, pollution prevention within the port area, compliance with environmental regulations, environmental impact assessments, environmental monitoring, emergency response to oil pollution and toxic chemical incidents, environmental education, ecological conservation within the port, vegetation maintenance, waste disposal, and resource recycling. Currently, there are three dedicated personnel assigned to handle environmental affairs.

Section /Office	Duty
Harbor Management Section	Harbor safety management and port operations, including port area environmental protection, pollution prevention, occupational safety management, signal station equipment maintenance, and the security maintenance of agency facilities.
Port Business Section	Commercial port operations development planning and facility operations management.
Construction Section	Port engineering project design and management (below 10 million NT dollars); port district private sector construction license application; port district construction; construction specifications files setup and manage-ment.
Stevedoring and Ware-housing Section	Loading and unloading operations management and coordination mat-ters, pollution prevention and occupational safety and health in loading and unloading operations, inspection and maintenance management of wharf facilities, planning and maintenance management of warehouses, and passenger service operations.
Accounting Office	Budget revenue and expenditure auditing; accounting archives.
Secretariat	General affairs; property and real estate; research and evaluation; cashier; procurements.
Civil Service Ethics Office	The draft, promotion and execution, conflict of interest avoidance, and ethics guidelines of legal ethics and preventive measures.

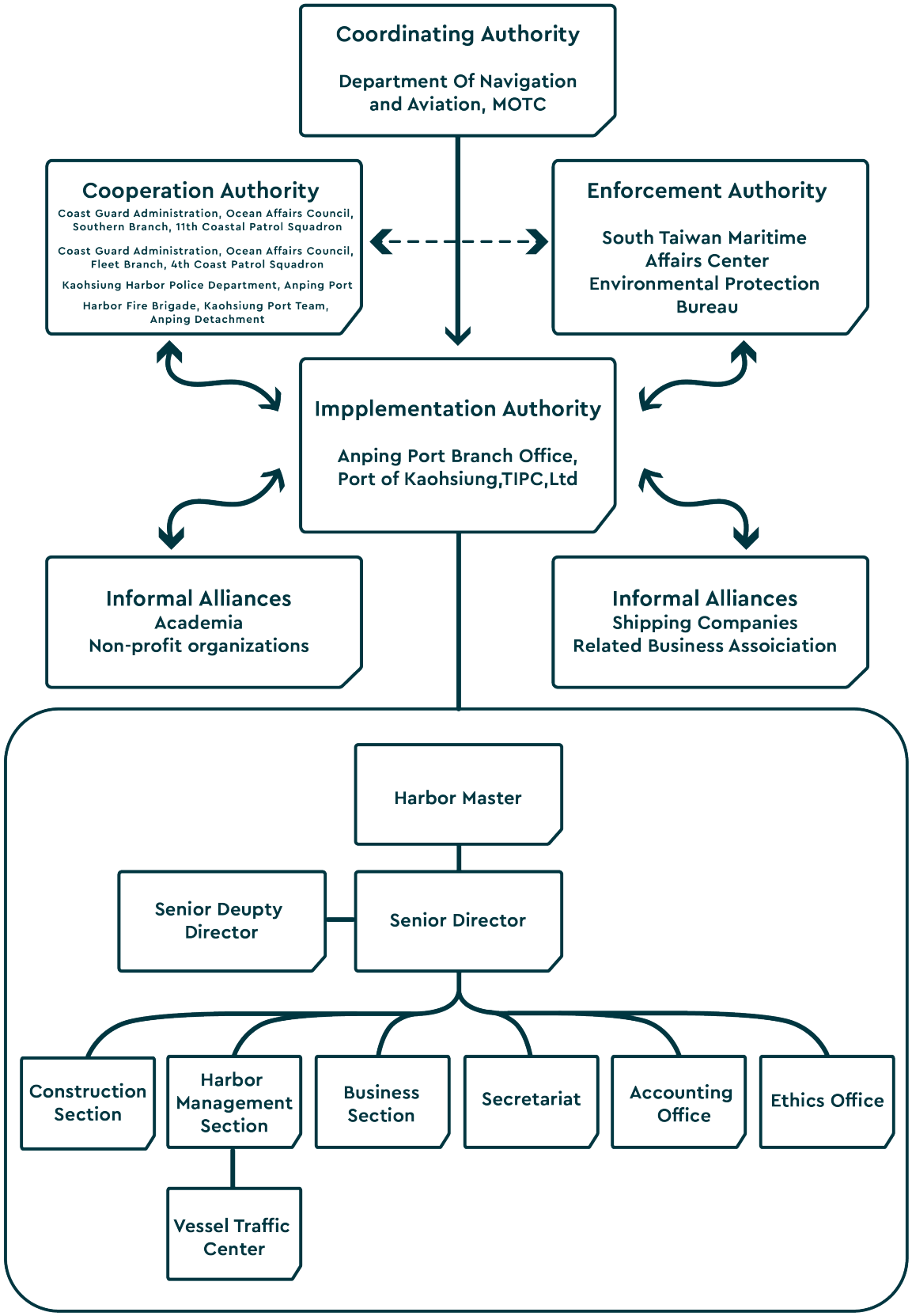


Figure of Organization Chart of Anping Port

3.2 Environmental regulations

According to the environmental regulations that the Anping Port Branch office complies with, sources of pollution can be divided into pollution from ships at sea and discharge of pollutants during operation at port. The former is regulated by international conventions and norms, whereas the latter is mostly governed by domestic regulations. Anping Port Branch Office follows relevant international specifications, such as International Convention for the Prevention of Pollution From Ships (MARPOL73/78), International Convention for the Control and Management of Ships' Ballast Water and Sediments, International Convention on the Control of Harmful Anti-fouling Systems on Ships etc. as shown in Table. In addition to the international environmental specifications and conventions, The Anping Port Branch Office collaborates with local authorities to manage the environment in the Port in compliance with relevant environmental laws and regulations in Taiwan.

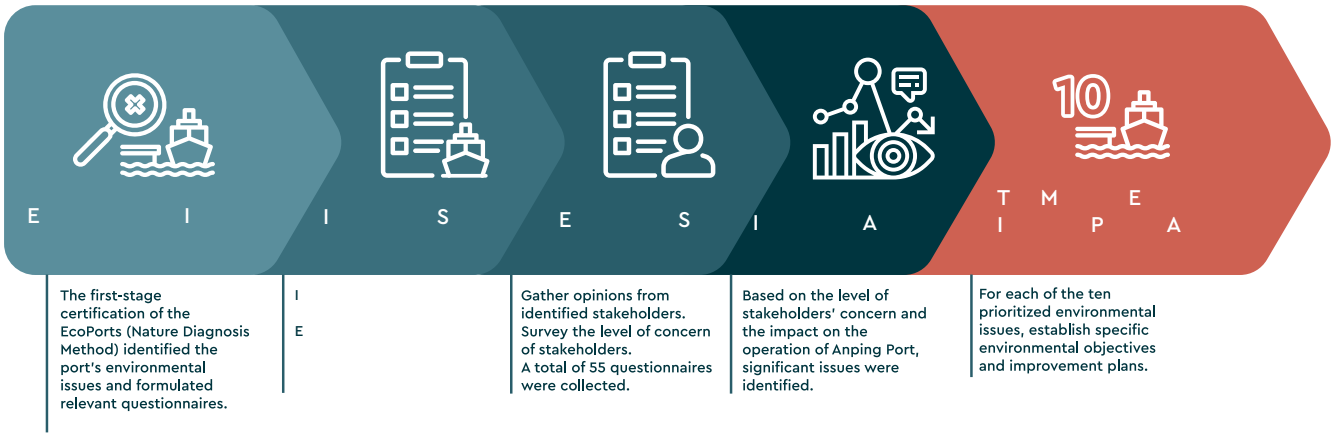
Conventions	Objective	Corresponding to the domestic legislation
International Convention for the Prevention of Pollution From Ships(MARPOL73/78)	Prevent pollution from ships	• The Law of Ships (article 101) • The Commercial Port Law (article 75) • No. 10150137211, 10150138211, 10150138214, 10150138451, 10250048611, and 10798000011 / Notices No. 10598000281, 10598000811, 10798000181, 10798001501, 1079800215, 10998000312, 10998002961, 11098000071, 11198000974, 11198001364, 11198003014, 11298301111 issued by the Maritime and Port Bureau, MOTC
London Dumping Convention	Regulate marine dumping	• Marine Pollution Control Act (article 23, 27) • Regulations Governing Permission and Management of Marine Disposal
International Convention on the Control of Harmful Anti-fouling Systems on Ships	Terminate the use of toxic hull paint	• Prohibition of the use of tributyltin oxide in manufacturing marine antifouling paint, specified in the "List of Prohibited Toxic Chemical Substances" of the Toxic and Concerned Chemical Substances Control Act
International Convention for the Control and Management of Ships' Ballast Water and Sediments	Prevent the invasion of alien species along with ballast water, and protect marine ecology and biodiversity	• Regulations on Equipment of Ships (article 174, 215, 216) • On August 20, 2015, the Ministry of Transportation and Communications announced the adoption of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. • On January 26, 2016, the Ministry of Environment announced the Marine Control Areas within the Territorial Sea of the Republic of China Where Ballast Water Exchange by Ships is Prohibited and the Related Pollution Control Measures.

Competent Authorities	Laws Title		Central Competent Authorities	Local Law Enforcement Agencies
Sectors in the Ministry of transportation and communications	The Commercial Port Law	2023/06/28	Ministry of Transportation and Communications	South Maritime affairs center-Anping MPD
	The Law Of Ships	2018/11/28		
	Shipping Act	2014/01/22		
	Act for the Establishment and Management of Free trade zones	2019/01/16		
Sectors in the Ministry of the Interior	Fire Services Act	2024/11/29	Ministry of the Interior	Fire Bureau, Tainan City Government
Sectors related to agricultural	Wildlife Conservation Act	2025/02/18	Ministry of Agriculture	Agriculture Bureau, Tainan City Government
Sectors related to environmental protection	Marine Pollution Control Act	2023/05/31	Ministry of Environment	Environment Protection Bureau of Tainan City, Government
	Basic Environment Act	2002/12/11		
	Air Pollution Control Act	2018/08/01		
	Water Pollution Control Act	2018/06/13		
	Waste Disposal Act	2017/06/14		
	Environmental Impact Assessment Act	2023/05/03		
	Environmental Education Act	2017/11/29		
	Noise Control Act	2021/01/20		
	Indoor Air Quality Act	2011/11/23		
	Toxic and Concerned Chemical Substances Control Act	2019/01/16		
	Soil and Groundwater Pollution Remediation Act	2010/02/03		
	Environmental Agent Control Act	2016/12/07		
	Climate Change Response Act	2023/02/15		
	Tainan City Self-Government Ordinance for Environmental Cleaning	2018/08/14		
	Tainan City Self-Government Ordinance for a Low-Carbon City	2023/12/27		
	Public Nuisance Dispute Mediation Act	2009/06/17		Public Nuisance Disputes Mediation Committee, Tainan City Government
Intersectoral	Disaster Prevention and Protection Act	2025/05/28	Ministry of the Interior	Tainan City Government

Table of Organization chart of Anping Port

3.3 Analysis of major environmental issues

To fully understand the opinion of each stakeholder and adapt to the new EcoPort Certification, the Port of Anping distributed internal questionnaires as an opinion poll among relevant stakeholders, including employees, the government, clients, and the community. The information obtained was used to evaluate the level of concern each stakeholder held. The data are plotted on the table to the right.



Stakeholder

To better understand the perspectives of its stakeholders, Anping Port conducted a stakeholder survey targeting employees, government agencies, clients, and local communities. A total of 92 completed questionnaires were collected. The results serve as the foundation for subsequent assessments of stakeholder concerns and priorities.

Internal Survey

- Air Quality
- Fugitive Dust
- Noise Pollution
- Industrial Air Emissions
- Vessel Exhaust Emissions
- Vessel Wastewater Discharge
- Ship-Generated Sewage
- Habitat and Ecosystem Loss
- Ship-Generated Waste
- Odor Nuisance
- Cargo Spill Incidents
- Port Waste and Litter

Colleagues of Anping Port Branch Office

External Survey

- Air Quality
- Fugitive Dust (Particulate Matter)
- Vehicle Exhaust Emissions
- Industrial Air Emissions
- Climate Change
- Odorous Emissions
- Vessel Wastewater Discharges
- River Pollution
- Marine Infrastructure Development
- Habitat and Ecosystem Loss

Government Agencies
Nearby Residents
Tenants

Responding to Stakeholders

For the issues and suggestions of concern to stakeholders, Anping Port has incorporated them as key points for port environmental improvement and continues to make enhancements in the port environment, aiming to maintain a green port with ecological sustainability

Related Parties	Issues	Situation in Anping Port
Tainan City Government Environmental Protection Bureau, Department of Water Quality Protection	Ship Discharges/ River Pollution	To ensure timely response to oil pollution incidents occurring outside of regular working hours, this office plans to establish a framework contract for oil spill response services. This approach will facilitate immediate action in the event of an expanded contamination area.
Taiwan International Ports Corporation, Ltd.	Climate Change	1.The 2023 greenhouse gas inventory was verified by a third party in accordance with ISO 14064-1:2018 and the GHG Protocol. 2.A total of 0.84 hectares of green area was added in 2023 and 2024.
Chiayi Branch, Forestry and Nature Conservation Agency, Ministry of Agriculture	Corporate Social Responsibility (CSR)	Fulfilling corporate social responsibility by participating in the Forestry and Nature Conservation Agency's ESG Afforestation Program.

Anping Port

Environmental Issues

Top 10

1. Air Quality

Indicator

-Air quality pass rate (PM_{10}, $PM_{2.5}$, SO_2, NO_2)

-The passing rate for diesel vehicles stopped and inspected inside the Clean Zone

-Promote transportation operator to use Automatic Gate Sentry Post Control System

2. Dust

Indicator

-Number of pollution control, enclosed handling, and dust collection loading/unloading equipment

-Proportion of bulk cargo (cement and coal) handled using enclosed storage facilities within the port area

-Volume of reclaimed water used

-Port cargo handling operation inspections

3. Management of Cargo Spillage from Ships

Indicator

-The deployment proportion of oil booms for chemical and oil product vessels

-The number of port area inspections, cargo spillage emergency response drills, and joint audits of vessels in the port area.

4. Loss of Aquatic Ecosystems

Indicator

-Pass rate of Heavy metal content in Aquatic organisms

5. Ship Emissions (wastewater)

Indicator

-Volume of waste oil wastewater received

-Waste oil wastewater acceptance rate

6. Ship Refueling Pollution Control

Indicator

-Fuel tank trucks comply with emission inspection standards.

-Fueling procedures for vessels are strictly followed.

7. Climate Change

Indicator

-Greenhouse Gas Emissions

8. Ship Waste

Indicator

-Domestic waste of crew members in port area

9. Hazardous Cargo Handling and Storage Management

Indicator

-Regular inspections of high-risk hazardous cargo

-Implementation of the Integrated Hazardous Cargo Safety Management Platform for real-time monitoring within the port

10. Noise

Indicator

-Daily qualification rate for port noise quality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04

State of the Environment

Air Quality

The primary sources of air pollution in Anping Port originate from exhaust emissions produced by fuel combustion from vessels, vehicle emissions from port operators, and the operation of cargo-handling equipment. The major air pollutants include Nitrogen Oxides (NOx), Sulfur Dioxide (SO_2), and Fine Particulate Matter ($PM_{2.5}$).

At present, there are four fixed air quality monitoring stations in the Anping Port area, located at the Visitor Service Center, Xingang Bridge, Yuguang Branch School of Yizai Elementary School, and Longgang Community. The monitored parameters include Total Suspended Particulates (TSP), Particulate Matter (PM_{10}), Fine Particulate Matter ($PM_{2.5}$), Sulfur Dioxide (SO_2), Nitrogen Oxides (NOx), and Ozone (O_3). Monitoring is conducted on a quarterly basis. The results from the 2023–2024 monitoring period are illustrated in the chart to the right.

Additionally, in coordination with ongoing construction projects, supplementary air quality monitoring is conducted around the perimeters of Wharf No.11, the ARGO Phase 3 project area, and the breakwater construction zone.

Air quality Performance	index presentation (qualified rate %)		
	Standards	2023	2024
PM_{10} Daily average (>125μg/m³)	90%	100%	100%
$PM_{2.5}$ Daily average (>35μg/m³)	75%	100%	94%
SO_2 Daily average (>0.75ppm)	100%	100%	100%
NO_2 Daily average (>0.1 ppm)	100%	100%	100%

Starting in 2023, in order to continuously improve air quality in Tainan City and safeguard public health, the Environmental Protection Bureau designated the "Anping Commercial Port and selected external access roads and surrounding areas" as the Phase II Air Quality Maintenance Zone of Tainan City and implemented mobile source control measures. The policy came into effect in 2024. Diesel buses and heavy-duty diesel trucks without valid smoke emissions inspection records within one year prior to the inspection date are prohibited from entering the Air Quality Maintenance Zone.

Year	Compliance Rate (%)		
	Number of Inspections	Number of Violations	Compliance Rate
2023	204	8	96%
2024	169	8	95%

According to performance data on roadside inspections within the Air Quality Maintenance Zone (Anping Commercial Port) provided by the Environmental Protection Bureau, the non-compliance rate for diesel vehicles in 2023 and 2024 ranged between 3% and 5%, which is within normal levels. In addition, in 2024, the Environmental Protection Bureau installed a system outside the Anping Commercial Port control area (as shown in the figure) to remind diesel vehicles entering the port area to obtain the Self-Management Label. Vehicles with the Self-Management Label are confirmed to comply with emission standards and may avoid repeated testing during roadside inspections.

Automatic Gate Sentry Post Control System

The Anping Port Industrial Zone and the Si-Kun-Shen Control Station currently operate a total of eight entry and exit lanes, of which four are equipped with automated sentry systems. These systems utilize Optical Character Recognition (OCR) and Radio Frequency Identification (RFID) technologies to automatically identify vehicles and swiftly verify data against the internal database. Each gate is equipped with electronic display panels, traffic signal lights, and other necessary hardware to effectively manage the entry and exit of personnel, vehicles, and containers.

In 2023, the system processed 346,114 vehicle entries, increasing to 521,470 entries in 2024.

According to estimates based on data from the Automotive Research & Testing Center (ARTC) and the Environmental Protection Administration's "Eco Taiwan" platform, each automated pass reduces approximately 0.152 kg of CO_2 emissions.

This results in an estimated 52.61 metric tons of carbon reduction in 2023 and 79.26 metric tons in 2024, demonstrating the environmental benefits of automation and digital transformation in port operations.

Year	Total number of vehicles	Reduced fuel consumption	Reduced carbon emissions (kg)	Carbon reduction (metric tons)
2023	346,114	24.6g/Vehicle	0.152Kg/Vehicle	52.61
2024	521,470			79.26

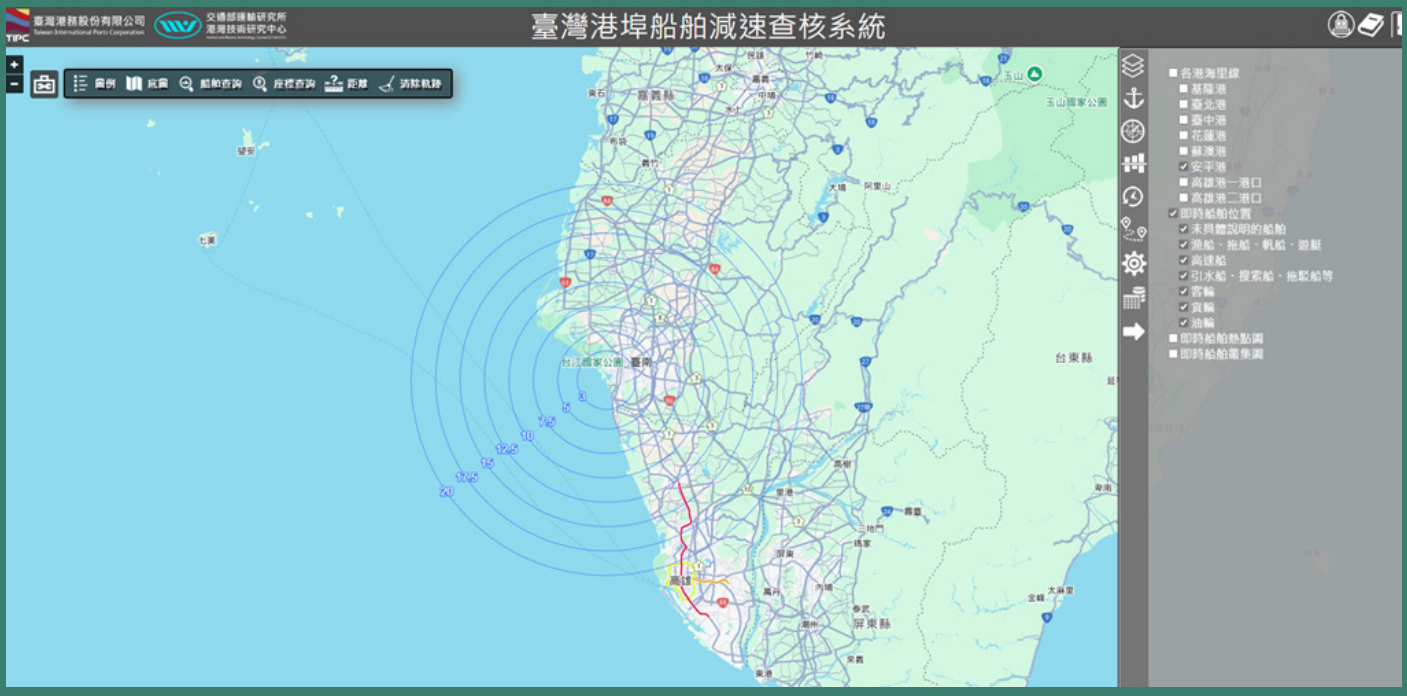
Note.1 : The fuel consumption data comes from The Automotive Research & Testing Center (ARTC)

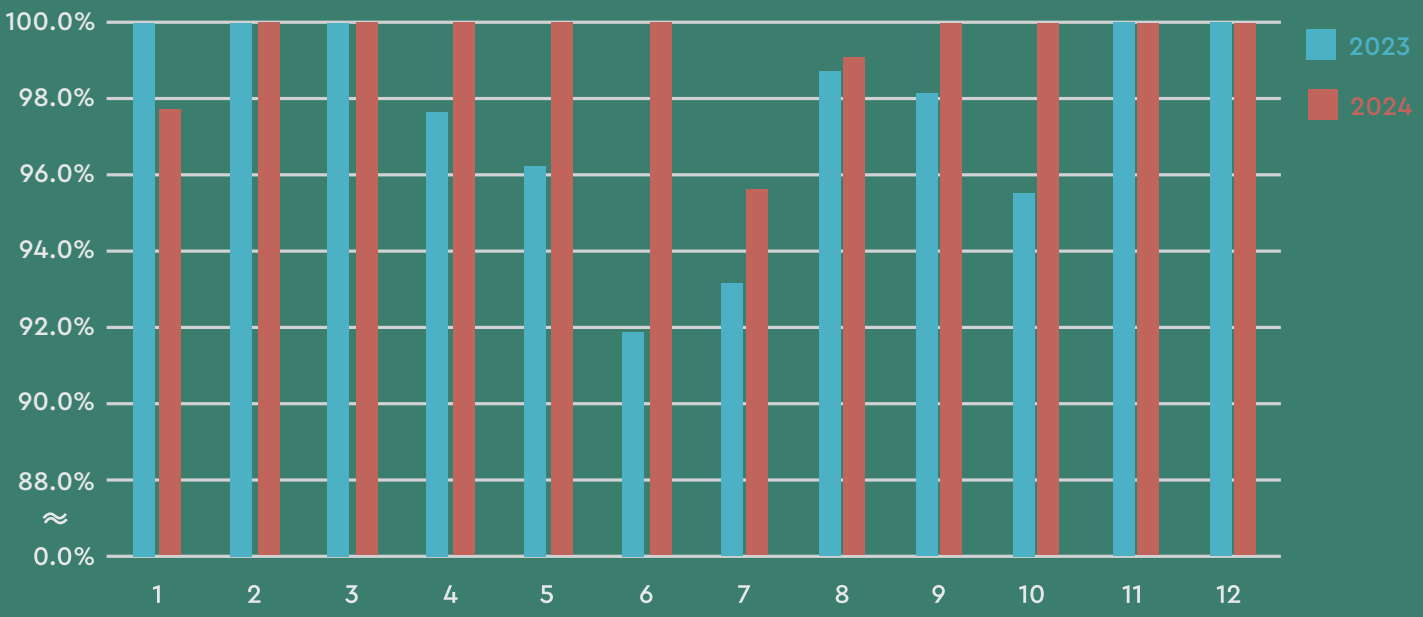
Note 2: Based on the data of the Environmental Protection Agency "Eco Taiwan Clean Homes Gucuobian Green Living Network"

Promotion of Vessel Speed Reduction

Reducing vessel speed effectively lowers exhaust emissions generated from fuel combustion. At Anping Port, the Vessel Traffic Service Center promotes speed reduction by broadcasting VHF messages to incoming vessels, encouraging them to reduce their speed to below 12 knots before entering the port. Once within the port area, vessels are required to proceed at reduced speed using minimal engine power according to regulations.

According to data from the Vessel Speed Reduction (VSR) Monitoring System, the compliance rate within the 3-nautical-mile range of Anping Port was 96.5% in 2023 and 99.4% in 2024, indicating high levels of cooperation from shipping operators and the effectiveness of the speed reduction initiative in contributing to improved air quality and reduced greenhouse gas emissions.





Vessel Speed Reduction Compliance Rate

Reducing Fugitive Dust in the Port Area

Fugitive dust at Anping Port primarily originates from bulk cargo handling operations, wind erosion, and vehicular movement within the port area. To mitigate dust generation and maintain air quality, the port has implemented the following control measures:

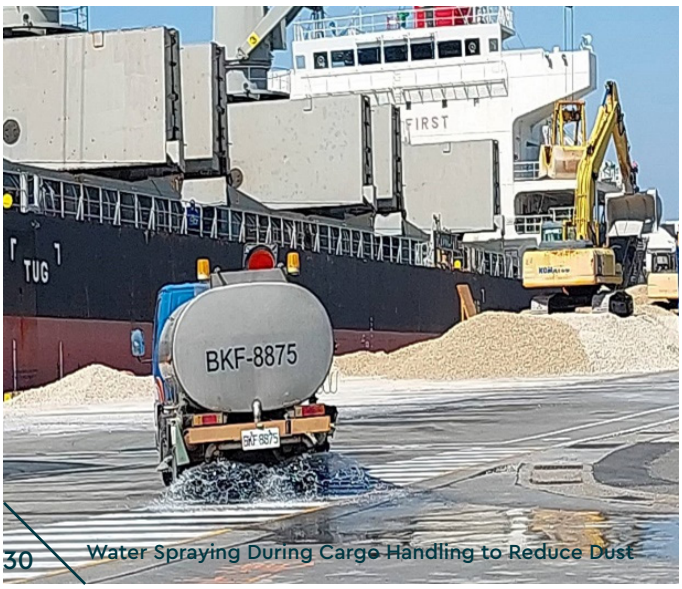
Wheel Washing Stations
Anping Port is equipped with four vehicle wheel washing stations within the operational dock areas. All cargo handling vehicles are required to clean their tires at these stations before exiting the port premises. The Wharf Management Section is responsible for ensuring the continuous functionality of the water spraying system.

Dust Nets and Mitigation Practices

1. Dust Nets on Vehicles:
   Vehicles transporting dust-prone cargo must be covered with dust nets to reduce particulate dispersion, prevent material loss during transit, and minimize roadway contamination.
2. Water Spraying During Operations:
   Water is sprayed on-site during loading and unloading operations to suppress dust formation.
3. Open Handling Sites:
   For operations not conducted within fully enclosed and integrated warehouses, dust nets are installed along the quay during cargo handling to reduce the spread of airborne particles.


Functional Wheel Washing Facility


Transport Vehicles Covered with Dust Nets



Water Spraying During Cargo Handling to Reduce Dust


Dust Nets Installed During Loading/Unloading

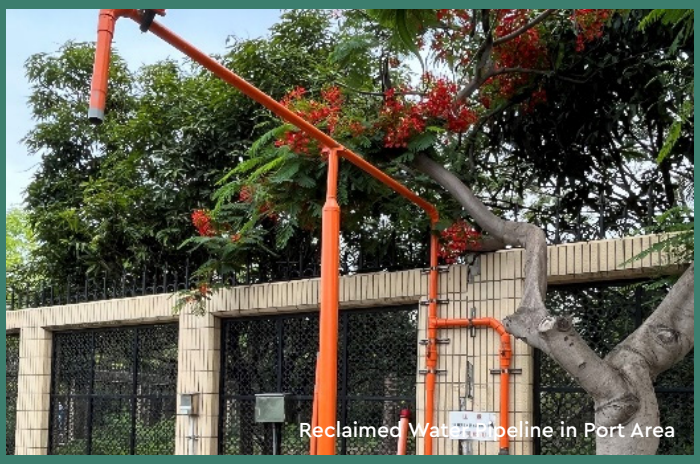
Use of Reclaimed Water for Dust Suppression

A reclaimed water pipeline, connected to the Tainan City Government's Water Resources Recovery Center, has been installed in Anping Port to support environmental management practices. The reclaimed water is used by port operators for activities such as quay surface cleaning and water spraying during cargo handling operations, helping to effectively reduce fugitive dust emissions.

- In 2022, a total of 5,208 metric tons of reclaimed water were used over the course of 12 months
- In 2023, 11,147 metric tons were used over 10 months.
- In 2024, due to equipment malfunction at the Water Resources Recovery Center, only 5,431.7 metric tons were used during a 4-month period.

Despite the temporary disruption in 2024, Anping Port continues to utilize reclaimed water as part of its ongoing efforts to control airborne particulate matter and promote sustainable water use within the port area.

Street Sweeper Using Reclaimed Water



Reclaimed Water Pipeline in Port Area

Road Washing and Sweeping

To effectively reduce road dust generated by transportation vehicles, in addition to regular road washing and sweeping within the Anping Port area, external road cleaning was initiated in collaboration with port tenants starting from December 2024.

Port Access Road Connection

Port Access Road Connection

Enclosed Storage Operations

To mitigate environmental pollution caused by suspended particles during cargo handling and transport, Anping Port implements dust suppression strategies such as utilizing enclosed storage systems for handling coal and cement. These measures include the installation of dust control equipment and regulations for cargo operations.

The utilization rate of enclosed storage facilities reached 100% in both 2023 and 2024, maintaining full enclosed handling for bulk and breakbulk cargo.

Cargo Handling Inspections

To control dust emissions from bulk cargo handling, the port intensified inspections of public bulk terminals through on-site supervision and real-time CCTV monitoring. Monthly joint inspections are conducted in coordination with the Tainan Environmental Protection Bureau and the Maritime and Port Bureau.

Additionally, the port holds at least one Pollution Prevention Awareness Meeting annually to promote clean cargo handling practices to port tenants. During periods of poor air quality, the Ministry of Environment also conducts unscheduled inspections targeting bulk cargo operations.

Inspections Conducted by the Ministry of Environment

Site Visits to Public Bulk Cargo Terminals

Deployment of Oil Booms

To reduce pollution caused by cargo spillage, the Anping Port Operations Office requires oil and chemical tankers to deploy oil booms. These booms help contain leaked substances, prevent their spread, protect water bodies, and facilitate spill recovery. In 2023, oil booms were deployed for 106 vessel calls; in 2024, for 86 vessel calls. All oil and chemical tankers calling at Anping Port are now required to deploy oil booms.

CCTV Monitoring in the Port Area

To ensure port safety and effective environmental management, the Anping Port Operations Office has installed CCTV systems for 24/7 surveillance of port activities. Regular inspections are conducted, and any detected pollution is promptly addressed—either through on-site advisories or by notifying relevant authorities for enforcement. Environmental protection requirements and pollution control measures are also specified in lease contracts with port tenants.

Emergency Response Drills

While individual operators in the port manage their own emergency protocols, the Anping Port Operations Office coordinates joint drills under its emergency response plan. In 2023, the office collaborated with Tainan City Government agencies to conduct a large-scale joint disaster prevention and response exercise—"Min'an No. 9"—at Berths 17 and 18. This drill aimed to enhance emergency handling capabilities and coordination across agencies, minimizing disaster impact through a unified response system.

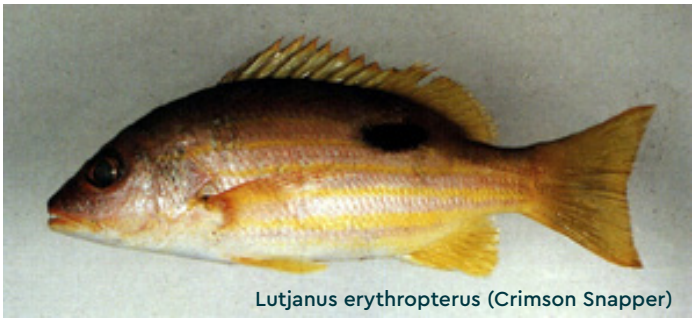
Strengthening Marine Ecosystem Monitoring

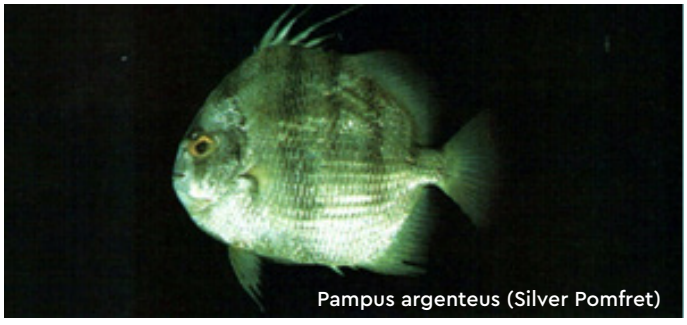
To enhance understanding of the marine ecological environment, the Port of Anping Operations Office conducts quarterly investigations and analyses of marine organisms as part of its Environmental Monitoring Program. Through long-term data accumulation, this program provides fundamental ecological information on the port's surrounding waters, offering insights into ecosystem balance, biological resource abundance, and overall water quality.

The ecological monitoring covers a wide range of organisms, including plankton (phytoplankton and zooplankton), benthic organisms, fish larvae and juveniles, and adult fish species. Samples of plankton and benthos are taxonomically identified to the genus, major group, and species levels. Based on the monitoring results, biodiversity indices are calculated, including species richness, dominance, evenness, and diversity.

Additionally, heavy metal concentrations in fish tissue are analyzed for six key metals: cadmium (Cd), copper (Cu), zinc (Zn), lead (Pb), manganese (Mn), and iron (Fe). By tracking changes in these indicators and the bioaccumulation levels across various marine species, the program effectively monitors trends in the marine ecological environment. These findings serve as vital reference indicators when assessing potential ecological impacts of future marine developments.

Compliance Rate of Heavy Metals in Aquatic Organisms	Indicator		
	Target	2023	2024
Cadmium (Cd)	70%	91%	87%
Lead (Pb)	70%	91%	100%


Lutjanus erythropterus (Crimson Snapper)


Pampus argenteus (Silver Pomfret)


Tetrosomus gibbosus (Indian Boxfish)


Siganus stellatus (Brown-spotted Spinefoot)

Enhancing Ship Wastewater Discharge Management

To strengthen the management of ship-generated wastewater within the port, only certified contractors who submit the required documentation are authorized to collect waste oil and wastewater from vessels in the Port of Anping. As of now, there are four certified waste reception providers operating in the port. These companies submit regular monthly reports on the volume of waste they process.

In 2023, the total volume of waste oil and wastewater collected from ships at the Port of Anping was 350.62 metric tons, increasing to 414.53 metric tons in 2024.

The Anping Port Operations Office conducts regular port inspections and actively participates in joint environmental supervision and pollution control audits organized by regulatory authorities.

To further enhance the port's readiness in handling marine pollution events, especially oil spills, comprehensive emergency response drills are organized in collaboration with the Tainan City Government. These exercises are designed to improve familiarity with the national marine pollution reporting and response system, reduce reaction time during actual emergencies, and strengthen cross-agency coordination in major marine pollution incidents.

Waste Oil/Sewage Collection at Berth


Marine Pollution Emergency Drill with Tainan City Govt.

Marine Refueling Pollution

To mitigate air pollution caused by refueling operations, fuel suppliers must apply to the Maritime and Port Bureau (MPB), Ministry of Transportation and Communications, in accordance with the Review Procedures for Fuel Truck Refueling Operations within Commercial Port Areas. The MPB may request assistance from this branch office for documentation review.

At Port of Anping, the Operations Office verifies whether the fuel trucks listed in the submitted documents comply with emission standards. This verification is conducted through the Environmental Protection Administration's Diesel Vehicle Emissions Inspection Information System, ensuring that vehicles entering the port emit exhaust within environmentally acceptable limits.

Climate Change

To align with international trends, respond to climate change mitigation and adaptation efforts, and support Taiwan's goal of achieving net-zero carbon emissions by 2050, the Port of Anping established a Sustainable Development Promotion Committee in 2022. In 2023, a commissioned study entitled "Taiwan International Ports Corporation (TIPC) GHG Inventory and Decarbonization Roadmap Planning" outlined decarbonization pathways and a strategic blueprint for Taiwan's ports.

This year, TIPC completed the 2023 greenhouse gas (GHG) inventory, which has been verified by a third party in accordance with ISO 14064-1:2018 and the Greenhouse Gas Protocol (GHG Protocol). The data reflects the facts and serves as a reference for setting science-based reduction targets. The Company has established carbon reduction action plans and milestones, aiming to achieve a 50% reduction of Scope 1 and Scope 2 GHG emissions by 2030 and net-zero carbon emissions by 2050.

On June 18, 2024, the Port of Anping conducted a third-party verification of its 2023 GHG inventory. Five designated sites within the port were visited by Bureau Veritas Certification (BVC), the appointed verifier. Based on the GHG Protocol methodology, the port's direct GHG emissions (Scope 1) were calculated at 55.8816 metric tons of CO_2e, while indirect emissions (Scope 2) were 2032.1194 metric tons of CO_2e.

Handling Ship Waste

To manage ship-generated waste at the Port of Anping, designated trash sorting bins are placed throughout the port area to encourage proper disposal by vessels and prevent waste from polluting docks and waters.

- In 2023, total land-based waste generated: 152.75 metric tons, with 0.221 metric tons recycled.
- In 2024, total waste generated: 134.86 metric tons, with 0.308 metric tons recycled.


Designated Waste Sorting in Port Area


Port Waters Cleaning

Port Waste Management

To ensure the safe handling of hazardous petrochemical products transported via pipelines and tanks, the Port of Anping has established an annual inspection team and participates in central government oversight programs.
Key initiatives include:

- Annual on-site inspections of high-risk hazardous goods.
- Participation in hazardous materials safety supervision led by the Maritime and Port Bureau.
- Joint inspections with the Ministry of Environment in 2023, and technical guidance from its Southern Environmental Incident Response Team in 2024.

In addition, petrochemical operators are required to update hazardous goods inventory daily through the Integrated Safety Management Platform. The Port Administration reviews and logs this data daily to maintain full awareness of the stock levels.

Reducing Cargo Spills

Given that the Port of Anping is adjacent to both the urban area and an industrial zone, the activities of the port and surrounding industries, as well as cargo transportation and port construction projects, have the potential to generate noise that adversely impacts the quality of life of nearby residents. As such, noise pollution has become one of the environmental issues of primary concern among local communities.

The commercial harbor zone of the Port of Anping falls under Category 4 control zones and is subject to noise standards applicable to roadways exceeding 8 meters in width. To ensure effective environmental management, the Anping Port Operations Office has established four designated noise monitoring stations located at: Yizai Elementary School (Yuguang Branch), Longgang Community, Anping Industrial Zone Control Station, and the Xingan Bridge. These sites were selected to monitor noise levels in sensitive receptor areas, major port traffic corridors, and cargo handling zones.

In addition, construction-related noise monitoring has been carried out at the perimeters of active work zones, including Wharf No. 11, the Phase III project of ARGO Yacht Group, and the revetment construction area.

According to the environmental quality monitoring results for 2023 and 2024, the noise levels in the Anping Port area were found to be fully compliant with regulatory standards, achieving a 100% conformity rate.

Anping Port Environmental Performance Index

Significant environmental issues of Anping Port		Indicator	Calculation method	Target value	
1	Air quality	Air quality pass rate (PM_{10}/ $PM_{2.5}$/SO_2/NO_2)	The ratio of the measurements in the air quality monitoring station of the port that meet the "Air Quality Standards"	• PM_{10} of the daily mean measurements satisfy the standard (<125μg/m^3):90% • $PM_{2.5}$ of the daily mean measurements satisfy the standard (<35μg /m^3):75% • SO_2 of the daily mean measurements satisfy the standard (<0.1 ppm): 100% • NO_2 of the hour average measurements satisfy the standard (<0.25 ppm): 100%	
		Inspection results indicate a high compliance rate among diesel vehicles operating within the air quality control zone.	(Number of vehicles stopped and inspected – Number of penalized vehicles = Number of vehicles that passed inspection) ÷ Number of vehicles stopped and inspected = Passing rate	A system has been implemented to remind diesel vehicles entering the commercial port area to obtain a self-regulation compliance label, in order to maintain a 100% compliance rate.	
		Promote transportation operator to use Automatic Gate Sentry Post Control System	Carbon reduction	Increase number of passing vehicles and carbon reduction ratio annually	
2	Dust	Numbers of pollution prevention cargo handling , enclosed cargo handling and dust collection cargo handling equipments	Increase/update or maintain the number of dust prevention devices	Perform biennial reviews of the prevention devices	
		Proportion of bulk cargo (cement and coal) handled using enclosed storage facilities within the port area	Annual cement and coal cargo handled through enclosed storage ÷ Total bulk (cement and coal) cargo handled through enclosed facilities × 100%	Maintain or increase ratio of enclosed storage usage in the handling of break-bulk general cargo	
		The usage of Reclaimed water	The usage of Reclaimed water in port area	Increase usage annually	
		Inspection of cargo handling operations in the port area	Numbers of Inspection of cargo handling operations	Inspect at least 50 times annually	
3	Management of Cargo Spillage from Ships	The deployment proportion of oil booms for chemical and oil product vessels	The deployment proportion of oil booms for chemical and oil product vessels (Number of vessels deployed with oil booms/ number of vessels entering the port × 100% = the oil boom deployment proportion).	Deployment oil booms of ship Bunkering is 100%	
		The number of port area inspections, cargo spillage emergency response drills, and joint audits of vessels in the port area.	The number of port area inspections, cargo spillage emergency response drills, and joint audits of vessels in the port area.	• Number of port area inspections:50 • Number of cargo spillage emergency response drills: at least one a year. • Number of vessel joint audits in the port area: at least 20 per year.	

	Indicator presentation (calculation details)	
	2023	2024
	• PM_{10} of the daily mean measurements satisfy the standard:100% • $PM_{2.5}$ of the daily mean measurements satisfy the standard:100% • SO_2 of the daily mean measurements satisfy the standard: 100% • NO_2 of the hour average measurements satisfy the standard: 100%	• PM_{10} of the daily mean measurements satisfy the standard: 100% • $PM_{2.5}$ of the daily mean measurements satisfy the standard: 94% • SO_2 of the daily mean measurements satisfy the standard:100% • NO_2 of the hour average measurements satisfy the standard: 100%
	• Number of vehicles stopped and inspected = 204 • Number of penalized vehicles =8 • Satisfy the standard = 96%	• Number of vehicles stopped and inspected = 169 • Number of penalized vehicles =8 • Satisfy the standard = 95%
	• The ratio of lanes (in and out of the port area) setting of Automatic Gate Sentry Post Control System • 4÷8*100%=50% • Numbers of passing vehicles:346,114 • Carbon reduction:About 52.6 tons	• The ratio of lanes (in and out of the port area) setting of Automatic Gate Sentry Post Control System • 4÷8*100%=50% • Numbers of passing vehicles:521,470 • Carbon reduction:About 79.3 tons
	• Number of anti-pollution loading/unloading facilities: 5 sets (3 by E.G.C. CEMENT CORP., 2 by Jiantong) • Number of enclosed loading/unloading systems: 3 units (3 by E.G.C. CEMENT CORP.) • Number of dust collection loading/unloading systems: 5 units (5 by E.G.C. CEMENT CORP.) • Number of dust control nets: 13 units (5 by E.G.C. CEMENT CORP., 8 by Jiantong)	• Number of anti-pollution loading/unloading facilities: 5 sets (3 by E.G.C. CEMENT CORP., 2 by Jiantong) • Number of enclosed loading/unloading systems: 3 units (3 by E.G.C. CEMENT CORP.) • Number of dust collection loading/unloading systems: 5 units (5 by E.G.C. CEMENT CORP.) • Number of dust control nets: 13 units (5 by E.G.C. CEMENT CORP., 8 by Jiantong)
	Enclosed storage cargo (cement + coal) ÷ Total enclosed bulk cargo × 100% (556,300 + 28,001) ÷ 584,301 × 100% = 100%	Enclosed storage cargo (cement + coal) ÷ Total enclosed bulk cargo × 100% (516,705 + 0) ÷ 516,705 × 100% = 100%
	The usage of Reclaimed water tons: 11,147	The usage of Reclaimed water tons: 5,432
	• Numbers of Inspection:453 • Transferred cases:0	• Numbers of Inspection:456 • Transferred cases:0
	Deployment oil booms of ship Bunkering:(106÷106) ×100%=100%	Deployment oil booms of ship Bunkering:(86÷86) ×100%=100%
	• Number of Port Area Inspections: 453 times (by land and sea) • Number of Emergency Response Drills: 1 • Number of Joint Environmental Inspections in Port Area: 36	• Number of Port Area Inspections: 456 times (by land and sea) • Number of Emergency Response Drills: 1 • Number of Joint Environmental Inspections in Port Area: 36

Anping Port Environmental Performance Index

Significant environmental issues of Anping Port		Indicator	Calculation method	Target value	
4	Loss of Aquatic Ecosystems	Pass rate of Heavy metal content in Aquatic organisms	The ratio of various heavy metals in the organisms in the waters that meet the [Sanitation Standard for Contaminants and Toxins in Food]	Heavy metal content in Aquatic organisms (Cd), (Pb), with a 70% compliance rate.	
5	Ship Emissions (wastewater)	Volume of waste oil wastewater received Waste oil wastewater acceptance rate	Actual volume of waste oil wastewater received by qualified vendors (oil record book) or setting up appropriate facilities for waste oil, wastewater, and other pollutant reception (Produced Volume ÷ Received Volume × 100% = Acceptance Rate)	Waste oil wastewater acceptance rate: 100%	
6	Ship Refueling Pollution Control	Fuel tank trucks comply with emission inspection standards. Fueling procedures for vessels are strictly followed.	The Ministry of Transportation and Communications Maritime and Port Bureau (MPB) reviews and approves applications for fuel tank trucks to supply fuel to vessels or port machinery within commercial port areas.	Fuel tank trucks entering the port must apply for and obtain approval from the MPB. 100% containment boom deployment rate around vessels during refueling operations.	
7	Climate Change	Greenhouse Gas Emissions	Direct Greenhouse Gas Emissions + Indirect Greenhouse Gas Emissions	Greenhouse gas emissions are updated every 2 years	
8	Ship Waste	Domestic waste of crew members in port area	•Port area crew's domestic waste collection frequency •Amount of domestic waste collected from port area crew	The ratio of domestic waste removal of crew members in port area: 2 times a week.	
9	Hazardous Cargo Handling and Storage Management	• Regular inspections of high-risk hazardous cargo • Implementation of the Integrated Hazardous Cargo Safety Management Platform for real-time monitoring within the port	• Inspection Frequency: Minimum of two inspections annually • Inventory Monitoring: Daily confirmation of hazardous cargo stock levels through the platform	At least two inspections conducted annually Daily verification of hazardous cargo quantities within the port area	
10	Noise	Daily qualification rate for port noise quality	The environmental noise standard for Category 4 road traffic is set at 76 decibels during the day (from 7 a.m. to 7 p.m.), 75 decibels in the evening (from 7 p.m. to 11 p.m.), and 72 decibels at night (from 11 p.m. to 7 a.m. the following day).	Port noise quality: 100.00% seasonal daytime qualification rate, 95.00% evening, and 93.00% nighttime	

	Indicator presentation (calculation details)	
	2023	2024
	Sanitation Standard for Contaminants and Toxins in Food • (Cd) 91.0% • (Pb) 91.0%	Sanitation Standard for Contaminants and Toxins in Food • (Cd) 87.0% • (Pb) 100%
	• Waste oil wastewater production volume: 350.62 metric tons • Waste oil wastewater received volume: 350.62 metric tons • Waste oil wastewater acceptance rate: 100%	• Waste oil wastewater production volume: 414.53 metric tons • Waste oil wastewater received volume: 414.53 metric tons • Waste oil wastewater acceptance rate: 100%
	• Assisted the MPB in reviewing a total of 54 application documents submitted by fuel suppliers at Anping Port, and verified the compliance of fuel tank trucks with emission standards via the Ministry of Environment's diesel vehicle emissions inspection system. • 100% containment boom deployment rate around vessel refueling operations on the water surface.	• Assisted the MPB in reviewing 40 additional application documents submitted by fuel suppliers at Anping Port, and verified fuel tank truck emission compliance using the Ministry of Environment's system. • 100% containment boom deployment rate around vessel refueling operations on the water surface.
	• Direct greenhouse gas (GHG) emissions: 55.8816 metric tons • Indirect greenhouse gas (GHG) emissions: 2032.1194 metric tons	The greenhouse gas emissions for 2024 are scheduled to be calculated and completed in 2026.
	• Removal ratio: 2 times a week. • The volume of domestic waste removal of crew members in port area: 152.971 ton	• Removal ratio: 2 times a week. • The volume of domestic waste removal of crew members in port area: 135.168 tons
	• 1 inspection conducted by Taiwan International Ports Corporation (TIPC) targeting petrochemical operators in Anping Port • 1 supervisory inspection of hazardous cargo handling operations at the Anping oil storage area conducted by the Maritime and Port Bureau (MPB), Ministry of Transportation and Communications • 1 on-site inspection conducted by the Ministry of Environment to assess hazardous chemical handling and storage compliance • Daily verification of hazardous cargo quantities using the Port Hazardous Cargo Safety Management Platform	• 1 inspection conducted by TIPC targeting petrochemical operators in Anping Port • 1 supervisory inspection by MPB on hazardous cargo operations at the Anping oil depot • 1 on-site guidance session led by experts from the Southern Regional Environmental Incident Response Technical Team under the Ministry of Environment • Daily verification of hazardous cargo quantities via the Integrated Platform
	• Daytime Leq: 100.00% • Evening Leq: 100.00% • Nighttime Leq: 100.00%	• Daytime Leq: 100.00% • Evening Leq: 100.00% • Nighttime Leq: 100.00%

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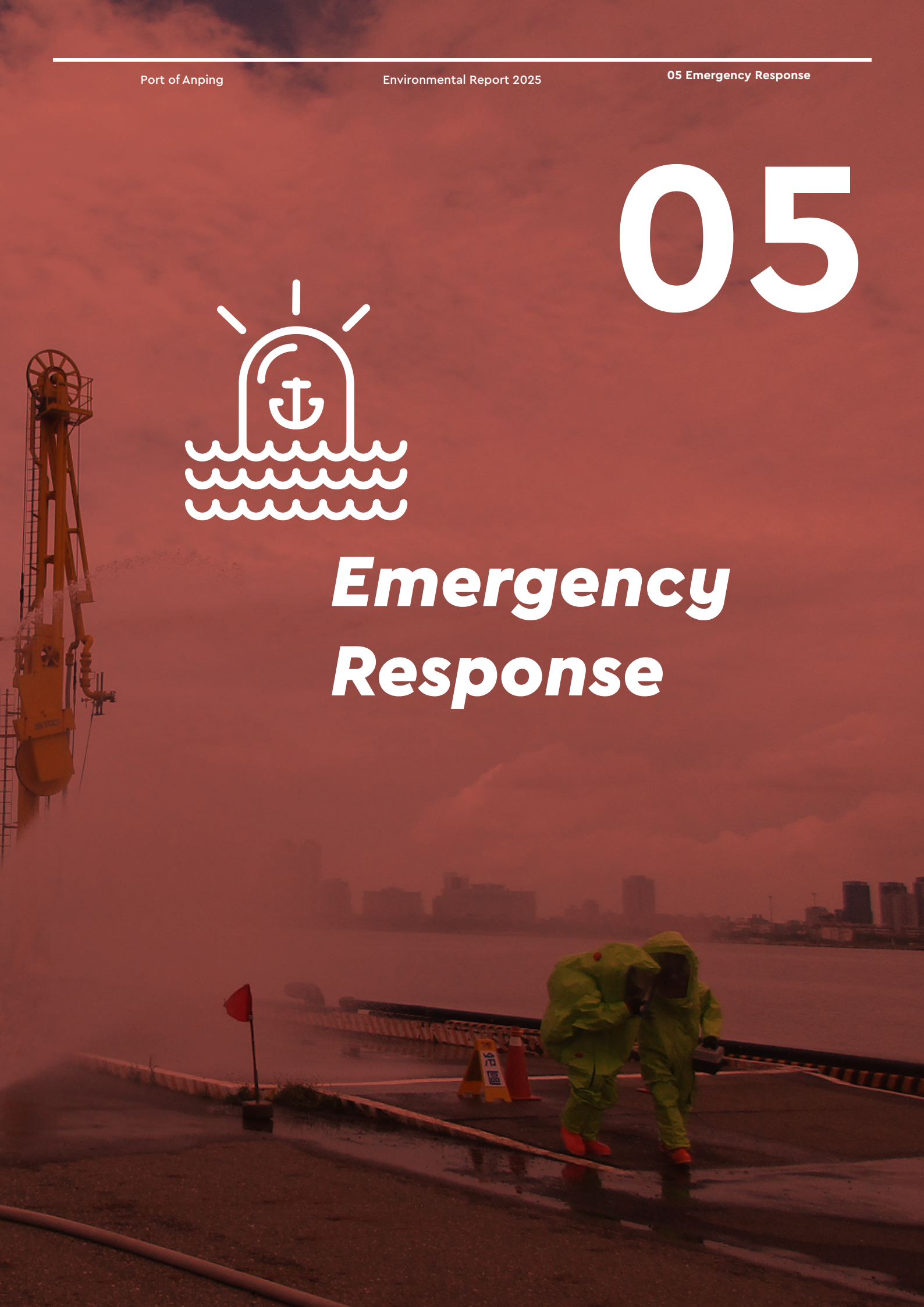
Emergency Response



5.1 Emergency Response

To ensure the safety of the operational environment at Anping Port, the Anping Port Operations Office conducts regular inspections of both land and water areas. If any suspected pollution is detected, immediate on-site advisories are given, and emergency response procedures are initiated. In cases where necessary, law enforcement agencies are promptly notified for further action.

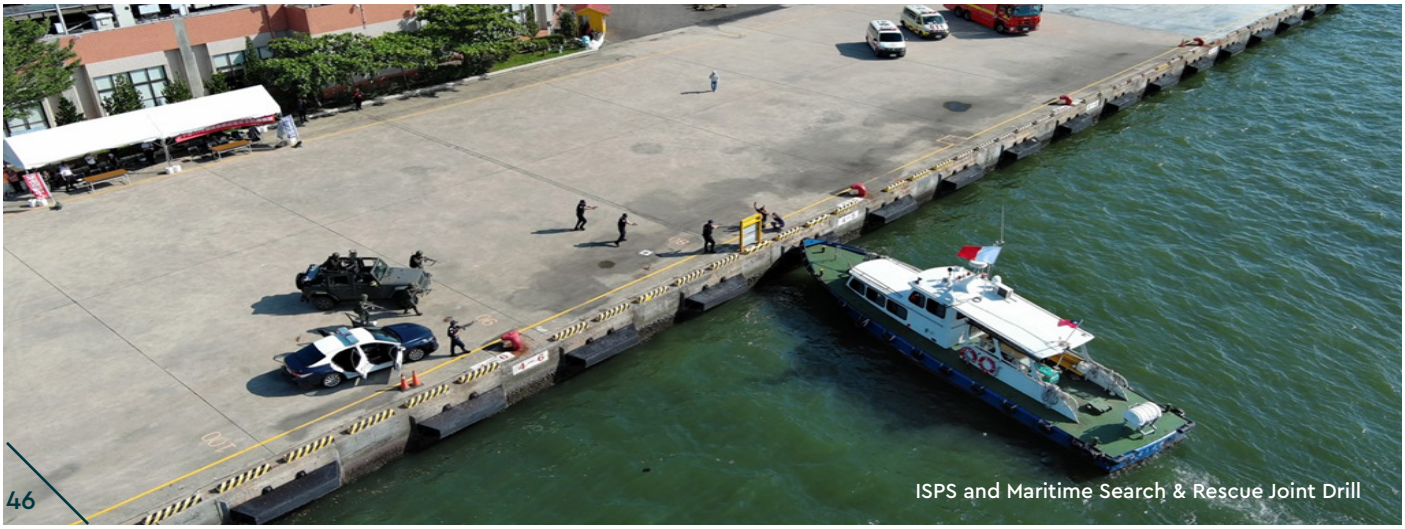
For incidents involving pollution or environmental hazards within the port area, multiple reporting channels are available to the public, shipping companies, and related stakeholders. These include:

- Anping Port Operations Office
- Tainan City Environmental Protection Bureau
- Southern Navigation Center of the Maritime and Port Bureau (Anping Port Affairs Section)

The Anping Port Operations Office has also established emergency response protocols for various scenarios such as:

- Ship-related accidents
- Fires or explosions
- Major oil spill incidents
- Serious injury or fatality within the port area

These procedures are designed to ensure timely and effective crisis management in the event of an emergency.

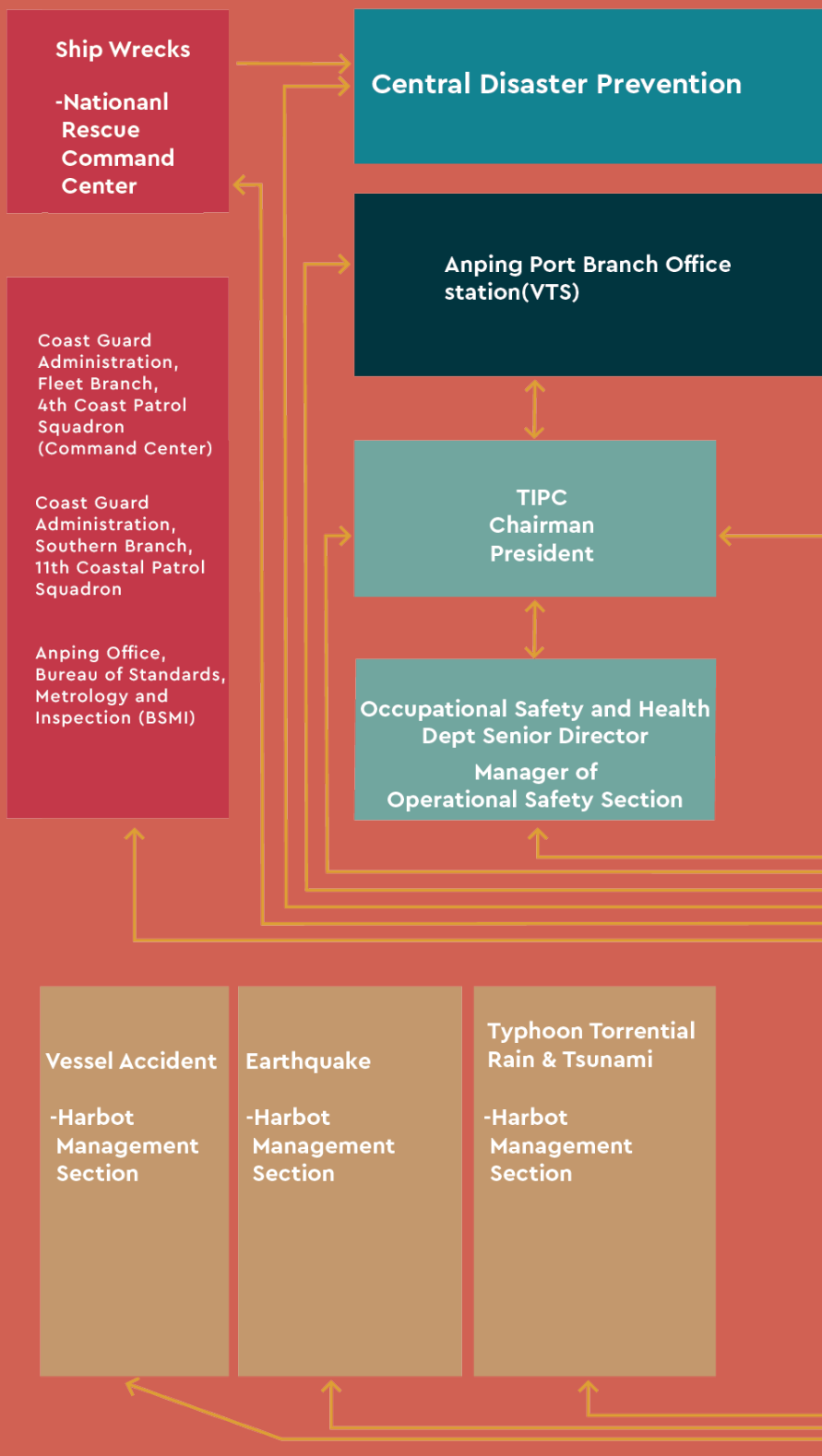


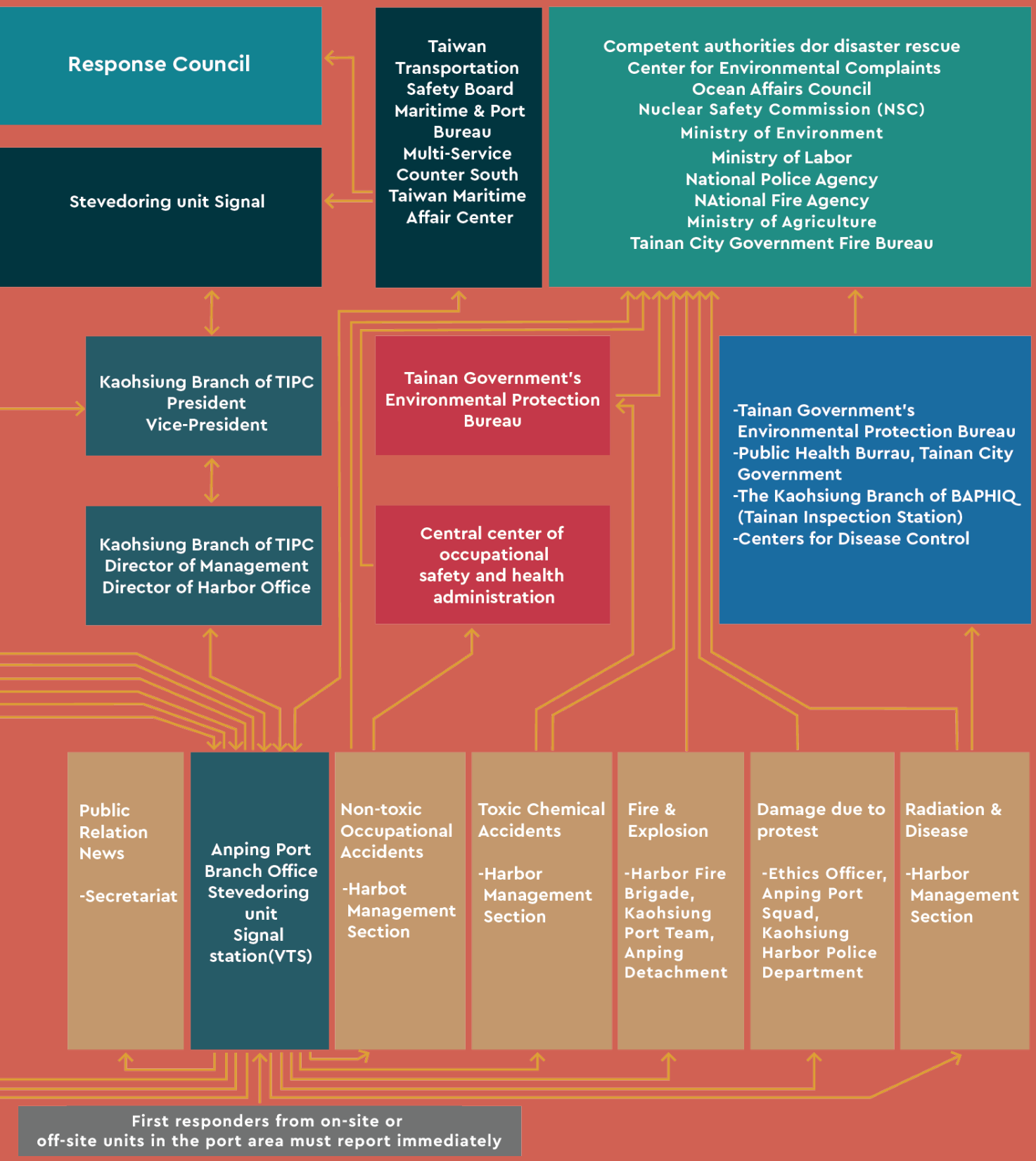
ISPS and Maritime Search & Rescue Joint Drill

Port Area Emergency Drills – Anping Port Operations 2023–2024 Exercise Summary

Year	Name of the Drill	Content	Dates
2023	Typhoon Drill: ISPS and Port Facility Implementation Exercise Simulation drill for emergency response to typhoon events to help each unit understand disaster response procedures and improve coordination to minimize disaster impacts.	Emergency response drills were conducted for typhoon events to ensure that each unit understands the emergency procedures and handling methods during disasters, thereby leveraging the joint defense system to minimize the impact of disasters.	March 31
	ISPS and Port Facility Safety Training Personnel safety training on various security issues within the port area. March 30, June 9, September 22, December 12	Conducting personnel training on various safety matters within the port area.	March 30, June 9, September 22, December 12
	National Marine Oil Spill and Hazardous Material Emergency Drill (Min-An No. 9)	Emergency drill simulating marine oil spill and chemical leakage events to enhance each unit's understanding of emergency procedures and coordination to minimize disaster impacts.	July 25
2024	Typhoon Drill: ISPS and Port Facility Implementation Exercise	Simulation drill for emergency response to typhoon events to help each unit understand disaster response procedures and improve coordination to minimize disaster impacts.	June 17
	Anping Port 113th Marine Rescue Mobilization Drill	Enhance port disaster response capacity for maritime and port-related accidents. Simulate emergency response and rescue efforts for maritime incidents, improve cross-agency coordination and communication, and strengthen joint response capability.	July 22
	ISPS and Port Facility Safety Training	Personnel safety training on various security issues within the port area.	March 15, June 7, September 16, December 12

Flow Chart for Disaster and Accident Notification in Port of Anping




Response Council
Stevedoring unit Signal
Taiwan Transportation Safety Board
Maritime & Port Bureau
Multi-Service Counter South Taiwan Maritime Affair Center
Competent authorities dor disaster rescue
Center for Environmental Complaints
Ocean Affairs Council
Nuclear Safety Commission (NSC)
Ministry of Environment
Ministry of Labor
National Police Agency
NAtional Fire Agency
Ministry of Agriculture
Tainan City Government Fire Bureau
Kaohsiung Branch of TIPC
President
Vice-President
Kaohsiung Branch of TIPC
Director of Management
Director of Harbor Office
Tainan Government's Environmental Protection Bureau
Central center of occupational safety and health administration
-Tainan Government's Environmental Protection Bureau
-Public Health Burrau, Tainan City Government
-The Kaohsiung Branch of BAPHIQ (Tainan Inspection Station)
-Centers for Disease Control
Public Relation News
-Secretariat
Anping Port Branch Office
Stevedoring unit
Signal station(VTS)
Non-toxic Occupational Accidents
-Harbot Management Section
Toxic Chemical Accidents
-Harbor Management Section
Fire & Explosion
-Harbor Fire Brigade, Kaohsiung Port Team, Anping Detachment
Damage due to protest
-Ethics Officer, Anping Port Squad, Kaohsiung Harbor Police Department
Radiation & Disease
-Harbor Management Section
First responders from on-site or off-site units in the port area must report immediately

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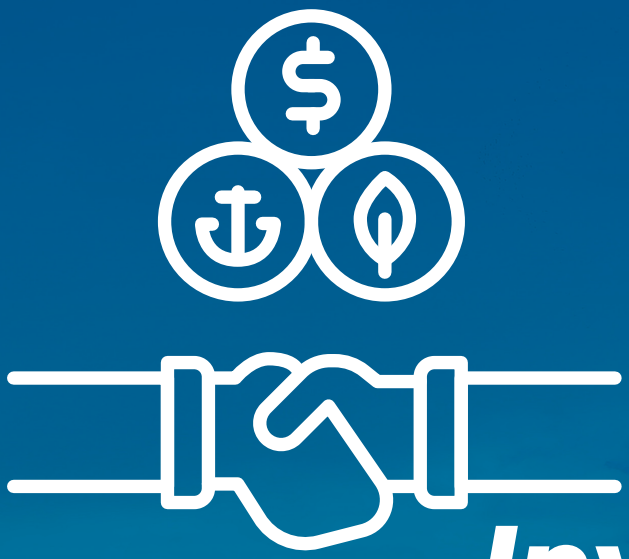

Involvement and Cooperation

6.1 Afforestation and Vegetation Planting on the Yuguang Island Beach, Port of Anping

- Environmental management strategy: Exemplifying / Enabling
- Environmental Issues: Climate Change, Air Quality and Local Communities

A. Attention/Motives

To improve the environment, protect the coastal ecosystem, and increase green coverage, our branch initiated an afforestation project along the beach of Yuguang Island. The goal is to provide a recreational area for visitors while ensuring the vegetation serves a functional role in wind protection and sand stabilization.

B. Solution

In partnership with National Chiayi University, a native coastal forest was planned and planted on the northern Crescent Bay of Yuguang Island. By March 2025, 83 trees, 4,500 shrubs, and 7,000 ground covers were planted across 0.6 hectares.

C. Implementation/Timeline

Date	Project
2023–2024	Native Coastal Forest Planning – Yuguang Island North Bay, Tainan
2024–2025	Tree Planting – North Yuguang Island, Port of Anping

D. Investment Amount

Date	Project	Cost (TWD)
2023–2024	Native Coastal Forest Planning – Yuguang Island North Bay, Tainan	NT$145,000
2024–2025	Tree Planting – North Yuguang Island, Port of Anping	NT$2,000,000

E. Effect/Benefits

Promoting a Green and Aesthetic Port Environment
To foster a high-quality, green, and aesthetically pleasing port environment, while protecting coastal zones and expanding green space coverage to preserve the ecological integrity of port vegetation.

Implementing Carbon Reduction Policies
To actively implement carbon reduction policies by leveraging the carbon sequestration capacity of trees, thereby mitigating the impacts of climate change.

F. Participating Units

Anping Port Branch Office, Port of Kaohsiung,TIPC

G. Stakeholders

- Anping Port Branch Office, Port of Kaohsiung, TIPC
- Local Residents
- Forestry and Nature Conservation Agencyr
- Visitors

Contact

Port of Anping
Harbor Management Section, Anping Port Branch Office, Port of Kaohsiung, Taiwan International Ports Corporation

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6.2 Investment and Development of Green Energy Facilities by Tong Jun Power Dynamics Co., Ltd.

- Environmental Issues : Soil quality, water quality, air quality, port land development, and their relationship with the local community
- Environmental management strategy: Exemplifying / Enabling

A. Attention/Motives

In November 2018, Tong Jun Power Dynamics Co., Ltd. (hereinafter referred to as Tong Jun Power) signed a lease agreement with the Kaohsiung Branch of Taiwan International Ports Corporation Ltd., to invest in the construction and operation of green energy industry manufacturing, logistics warehousing, and related facilities in the Si-Kun-Shen Logistics and Warehousing Zone of Anping Port. The company is actively planning the future direction of the Anping Port Green Energy Industrial Park.

Given the global priority placed on carbon neutrality and net-zero emissions, as emphasized by international frameworks such as the 2015 Paris Agreement and the RE100 initiative—which calls for corporations to achieve 100% renewable energy use by 2050—Taiwan has also committed to a 2050 Net-Zero Emissions Goal, promoting wind power, solar photovoltaic (PV) systems, and other renewable energy sources to strengthen its green energy infrastructure.

In line with this global green transformation, Tong Jun Power integrated solar power generation facilities into the early-stage planning of the industrial park, making it a core infrastructure component. The company aims to achieve energy self-sufficiency within the zone, and ultimately contribute surplus renewable electricity to support other industrial users, helping accelerate the green transition.

B. Solution

The solar power generation carport (also serving as a yacht shelter) is the first solar facility within the industrial park. The project was initiated in 2020 (ROC Year 109), with construction starting in November 2021 and completion in November 2023. It officially began supplying electricity in January 2024.

Covering an area of 2,800 ping (approximately 9,250 square meters), the system has a power generation capacity of 1.2 MW. The upper structure is fitted with solar panels for electricity generation, while the lower space has been utilized as a parking area and a mooring zone for yachts, achieving a multi-functional land use strategy.

This integrated design supports long-term goals aligned with the principles of environmental protection, sustainability, multifunctionality, and green energy development—positioning the facility as a model for diverse, eco-friendly, and resilient energy infrastructure.

C. Implementation/Timeline

Timeline	Task
2020/03	Planning phase
2021/11	Construction phase
2024/01	Operation phase

D. Investment Amount

Construction Budget: NT$75,000,000

E. Effect/Benefits

- Solar energy is a form of green energy that operates with zero carbon emissions, directly contributing to the achievement of corporate and global goals for net-zero emissions. The integration of solar power within the park demonstrates a strong commitment to sustainability and climate action.
- In addition, Taiwan faces high electricity demand during the summer months, and solar power systems help increase the overall energy supply, ensuring a more stable grid and reducing the risk of power shortages. This not only supports national energy resilience but also guarantees uninterrupted electricity for operations within the industrial park.

F. Environmental Topics Involved

- Soil quality
- Water quality
- Air quality
- Development of port land areas
- Relationship with local communities

G.Stakeholders

- Port Tenants
- Anping Port Operations Office

Contact

Port of Anping
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07

Training and Communication

Training

In accordance with its Environmental Policy Statement, the Anping Port Operations Office provides appropriate environmental education and training. These efforts not only cultivate employees' environmental awareness and enhance their knowledge of environmental protection but also serve to strengthen Anping Port's overall competitiveness.

Since the Environmental Education Act was promulgated in 2011, all public enterprises and relevant institutions are required to establish an annual environmental education plan. Each employee must participate in at least four hours of environmental education per year.

In 2023 and 2024, the Anping Port Operations Office organized various environmental education programs and activities targeting both internal and external personnel. These programs covered a wide range of topics, including pollution prevention, natural disaster awareness, physical and mental health, and site visits.

"Good Partners, Clean Beach Together"
- Yuguang Island Cleanup Event


ISPS Security Training


Self-Defense Firefighting Team Training


Air-Raid Evacuation Drill

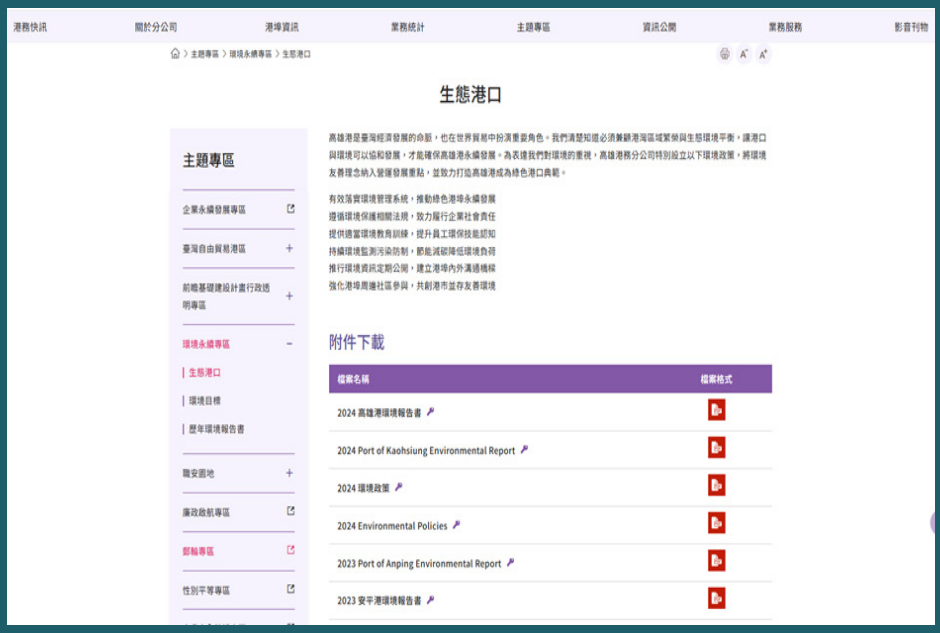

Health Promotion

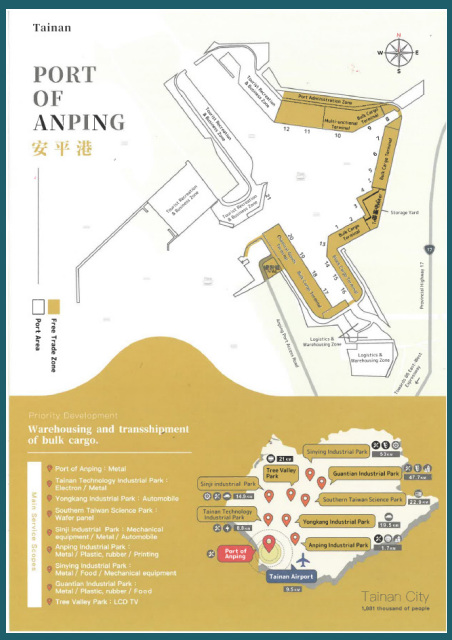

Union Environmental Education

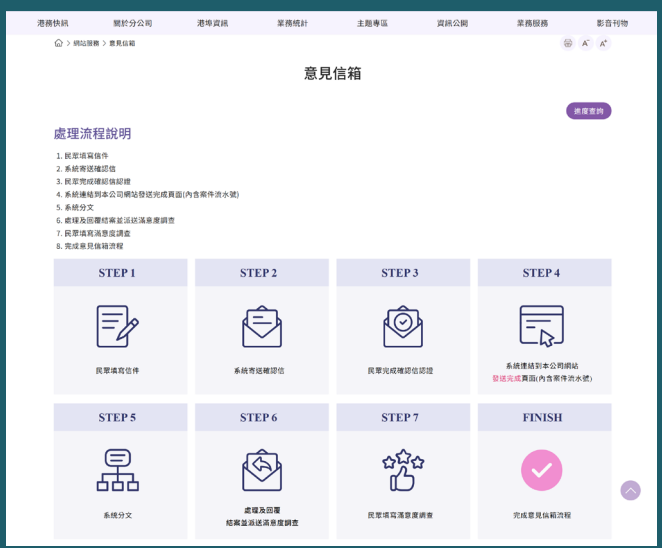

Fire Safety Awareness

Communication & Publication

Anping Port Operations Office, through the official website of the Taiwan International Ports Corporation, Kaohsiung Port Branch, publicly discloses relevant information about Anping Port, including the environmental report, introduction of the port area, investment opportunities, application procedures, and a public feedback mailbox.







Activity

2023 Yuguang Island Art Festival

2024 Ocean-Based Local Revitalization and Education Development

Yizai Elementary School – Yuguang Branch

2023 AI Roadshow: Advancing with Tech Education

2024 Floating Market

2024 World Oceans Day

2023 17th Historic Capital Marathon

2024 18th Historic Capital Marathon

08

Green Accounting

9.1 Environmental investment and cost

The environmental expenditures made by the Anping Port Operations Office primarily fall into the following categories: personnel, environmental maintenance and management, environmental monitoring, publications, emergency response, and communication.
The purpose of these expenditures is to enhance employees' environmental awareness, maintain the environment, improve environmental quality, strengthen emergency response capabilities, and raise public awareness and understanding of port operations.

The total environmental-related expenditures of the Anping Port Operations Office were:
- NT$24,093,479 in 2023,
- NT$33,892,624 in 2024,
  equivalent to approximately €704,282 and €990,723, respectively.

- Personnel: Personnel costs related to environmental staff, as well as environment-related education and training.
- Environmental Maintenance and Management: Includes port greening and beautification, waste removal, and port dredging operations.
- Environmental Monitoring: Covers monitoring and inspections of air quality, noise, water quality, sediment, and dredging-related environmental impacts.
- Emergency Response: Costs related to accident response, materials used for pollution control in port areas, and testing and identification fees for hazardous substances.
- Communication and Publications: Includes website maintenance, promotional activities, and environmental publications.
- Green Procurement: Procurement of office supplies certified with green environmental labels.

Environmental Expenditures in 2023 and 2024 (Unit: NT$ thousands)

Item of Expense/Year		2023	2024
		Unit: TWD in Thousands	
Staff	Cost of environment-related personnel	4,013,796	5,238,739
	Training costs	110,088	177,198
	Subtotal	4,123,884	5,415,937
Environmental Maintenance and Management	Outsourced spending for port garbage disposal	13,247,018	16,697,250
	Port greening (plantation and maintenance) and beautification	1,205,018	1,920,857
	Subtotal	14,452,036	18,618,107
Environmental Monitoring	Environmental monitoring-related expenses	4,689,800	9,227,473
Emergency Respose	Port disaster drill expenses	414,055	277,126
Communication and Publication	Welfare expenditure (for networking with neighboring communities)	320,000	260,000
Green Procurement	Office supplies cost	93,704	93,981
	Total	24,093,479	33,892,624

9.2 Environmental Assets

To enhance asset utilization efficiency at the Port of Anping, stimulate local economic prosperity, and develop an environmentally friendly green port, the Port of Anping Operations Office has implemented a series of port development projects. Some of these projects involve environmental issues, such as the construction of recreational infrastructure to improve public access to the port, the establishment of a ship speed reduction audit system to enhance enforcement effectiveness and reduce pollutant emissions, and the procurement of products certified with eco-labels to reduce environmental impact and achieve sustainable operations.

In total, the Port of Anping Operations Office invested NT$151,543,564 in 2023 and NT$100,039,472 in 2024 in fixed assets related to environmental issues, equivalent to approximately EUR 4,429,803 and EUR 2,924,276 respectively.

Environmental Capital Investments by Anping Port Operations Office in 2023 and 2024 (Unit: NT$ thousands)

Item	2023	2024
Land Improvements	7,265,914	6,168,357
Buildings and Structures	1,595,972	1,896,078
Machinery and Equipment	1,920,502	3,213,767
Transportation Equipment	3,018,917	2,590,111
Miscellaneous Equipment	242,063	238,940
Total	14,043,368	14,107,253

09

Improvement Recommenda-tions

Since its elevation to an international commercial port in 1997, the Port of Anping has strategically positioned itself as a dual-function harbor, balancing industrial cargo handling with tourism and recreational waterfront development. Initially serving primarily as a hub for bulk cargo such as gravel, cement, and petrochemical products, Anping has successfully transformed its operational identity, advancing toward a dual-axis development strategy:
the southern zone focuses on free trade operations, while the northern zone is dedicated to tourism-oriented waterfront revitalization.

In the southern section, Anping leverages its established Free Trade Port Area to provide efficient vessel and cargo handling services, thereby enhancing the operational effectiveness of Taiwan's free trade infrastructure. Meanwhile, the northern zone integrates urban planning elements and local industrial characteristics to promote investment in international yacht marinas, the Phase 5 waterfront recreation and commercial zone, the Sankunshen area, and the Crescent Bay. This initiative aims to create a high-quality, accessible, and vibrant waterfront environment, encouraging public engagement with the port.

As a responsible international port operator, Anping recognizes that building an environmentally friendly harbor is fundamental to long-term competitiveness and social license to operate. Since its early development stages, the port has implemented a series of environmental initiatives, including mangrove restoration, closed-loop unloading and storage systems, shore power infrastructure, clean air zones, air quality maintenance areas, and continuous environmental monitoring programs. These efforts have positioned Anping among the ranks of international eco-ports.

Anping Port further acknowledges that environmental sustainability is inseparable from corporate social responsibility. This eco-port ethos continues to shape future land-use planning. For instance, the design of the northern tourism zone is grounded in principles of low-density, low-carbon, and ecological development, with the goal of establishing a low-carbon waterfront ecological island.

Looking ahead, Anping Port remains committed to enhancing port-area environmental quality through sustained environmental upgrades, coastal conservation, and green space expansion. In doing so, it aims to promote ecological sustainability while fostering strategic partnerships with local governments and investors — creating a triple-win scenario that benefits the environment, the economy, and the community.

If you have any inquiries regarding this report, please contact us.

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