

## 綠色港群 領航國際

Pioneering International Green Ports

Taiwan International Ports Corporation Ltd. (TIPC)

# 五、強化在地社區溝通平台,共創港市永續發展。

一、落實綠色港口推動方案,打造國際優質港埠;

二、遵行環保相關法規要求,善盡企業環保責任;

三、執行環境監控污染防制,提升港埠環境品質

四、推動環境相關宣導教育,培育員工環保意識

## **Environmental Management Policy**

- 1.Implement and follow through with the Green Port
   Programme 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; and
- 5.Strengthen the communication with local communities, and pursue sustainable development for both the ports and the cities where we are operating.





### 绿色港口

臺灣港務股份有限公司為響應國際綠色港口之發展趨勢,特針對轄下之七大港口:基隆港、臺北港、蘇澳港、臺中港、安平港、高雄港及花蓮港,提出綠色港群的概念,透過「臺灣港群綠色港口推動方案」,規劃短、中、長期綠色港口策略,以管理手法、法規、規範要求與具體建設,創造港口與自然和諧之發展,使台灣港群符合綠色經濟發展要求,尋求港口的經濟效益與環境影響之間的平衡。

「臺灣港群綠色港口推動方案」主要分為以 下四大構面:

(一)旅運(二)貨運(三)港口環境(四)城市/社區發展

### reen Port

In resonance with the international green port development trend, TIPC has proposed the concept of green ports for its seven major ports: Port of Keelung, Port of Taipei, Port of Suao, Port of Taichung, Port of Anping, Port of Kaohsiung and Port of Hualien. With the "Greening the Ports Action Plan," short, medium to long term green port strategies are devised to foster the harmonious development of the ports and nature through management techniques, laws, regulations and concrete constructions. This will ensure that Taiwan's ports will conform to the need for green economic development by striking a balance between the ports' economic benefits and environmental impact.

"Greening the Ports Action Plan" is composed of four major aspects:

1. Cruise terminal 2. Cargo operation 3. Port environment
 4. Community outreach

### 軍

持續強化郵輪廢棄物管理工作,提升宣導垃圾分類回收及資源回收率,規劃進行各港郵輪碼頭岸電系統設置、推動郵輪接用岸電示範計畫,透過示範港方式,逐步落實並擴大推動岸電系統之應用,以減輕船隻停泊時產生之噪音及廢氣污染對港區環境及周遭社區之影響。

為推動遊客旅運中心節能減碳,於未來旅客 中心規劃中,納入綠建築概念,以落實環境永續 化設計。

### Cruise terminal

Continue to reinforce cruise ship waste management and the planning of shore power systems at the cruise terminals of various ports and to promote cruise ship shore power demonstration projects in order to minimize the impact of noise and emissions from berthed ships on the environment and nearby communities.

In an effort to promote energy conservation and carbon reduction at the cruise terminals, the green building concept will be incorporated into future terminals to materialize environmental sustainability.



### 貨组

為減少船舶空氣污染物排放,推動進港船舶 減速試辦計畫,以高雄港為示範港,透過示範港 成功之經驗,帶領臺灣港群其他各港後續推動執 行。

為減少貨物輸送過程造成揚塵空氣污染物排

放,持續與業者合作推動興建密閉式倉儲系統;並以內部營運制度調整及整合外部資源推動進港 船舶泊岸轉油、低污染卡車等計畫,未來將持續 關注國際船舶LNG發展情勢,滾動檢討並規劃可 行措施。

### Cargo operation

In an effort to reduce air pollutant emissions from ships, the vessel speed reduction program is implemented in Port of Kaohsiung as a demonstration project. Through the successful experience of the demonstration port, the program will be adopted in other ports in Taiwan.

In order to mitigate dust during cargo transportation, TIPC continues to collaborate with manufacturers to construct enclosed storage systems. Furthermore, programs such as ship fuel switch at ports and low-emission trucks are being developed by integrating internal operational adjustment. In the future, continued focus will be on the trend of LNG vessels development and the formulation of feasible measures.



### 港口環境

推動港區污染預防自主管理,落實「逕流廢水污染預防削減計畫」,以降低港區水域污染,並透過各港環境監測作業,健全港群環境背景資料。

為落實港區環境管理工作,將持續推動各港 通過歐洲EcoPort生態港口認證;規劃將綠色港口 建構工作,延伸到港區內事業,推動供應鏈綠化 ,扮演綠色港口建構之舵手,與區內事業共創綠 色經濟奇蹟。

### Port environment

Promote autonomous pollution prevention management by implementing the "Storm Water Pollution Prevention Plan" to reduce water pollution inside the port. Moreover, various environmental monitoring operations are in place to construct environmental quality baseline in the port areas.

In order to perform port environmental management, TIPC will continue to work towards obtaining the European EcoPort certification for ports in Taiwan. It is intended to extend the green port construction work to tenants inside the port so as to foster the creation of a green supply chain that acts as a driving force behind green port development. The aim is to jointly create a green economic miracle with port tenants.



### 城市/社區發展

要求租賃業者須符合環保相關法規要求,並 進一步使用低污染、對環境衝擊較低之耗能設備 ,共同發展環境友善意識,持續維護、營造親水 綠帶空間,建立港區環境友善形象,並結合資產 活化政策,綠化發展機會與商機。

推動成立環境教育認證設施場所,提供民眾 參訪學習,結合地方政府觀光、產業發展政策, 達到港市發展最大效益。

## Community outreach

Require tenants to conform to relevant environmental laws by using low pollution and more energy efficient equipment that have less impact on the environment. Other efforts include developing eco-friendly awareness, maintaining and creating waterfront green belts, building an eco-friendly image, and exploring green space development opportunities and business opportunities by incorporating asset revitalization policies.

Promote the establishment of EPA-certified environmental education facilities and venues for the general public to visit and learn. Integrate local municipality's tourism and industry development policies to achieve maximum benefit for port and city development.





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## 安平港一兼顧環境與經濟

#### 配合北觀光、南自貿政策

規劃92.1公頃海岸遊憩區,結合觀光旅遊與 融合當地社區;在自貿區推動上,亦興建相應基 礎設施,如自動車道與自動門哨設備等。

#### 豐富的環境監測計畫

安平港環境監測項目多元,包含空氣、噪音 、水質、海域生物、地形等,以更精準掌握港區 環境狀況。

### Port of Anping — Equal emphasis on the environment and the economy

#### In conjunction with the policy of "Tourism in the North and Free Trade in the South"

92.1 hectares of coastal recreational area are designed to combine tourism development with community development. In terms of free trade promotion, related infrastructure such as automatic lane and gate systems etc. have been constructed

#### Comprehensive environmental monitoring programs

At the Port of Anping, various aspects are monitored including air, noise, water quality, marine life and terrain etc. in order to offer a more precise control over the environmental conditions of the port.



## 臺北港一填海造地新興港

#### 臺北商港物流倉儲區填海造地計畫

預計於民國104年完成填築新生地計48.3公 頃,作為港區浚泥收受再利用及北部地區公共工 程剩餘土石方收容場所,以解決土方處理問題

#### 密閉式倉儲設施

臺北港第一散雜貨中心設置煤炭及砂石密閉 式裝卸倉儲設施;第二散雜貨中心亦設置密閉式 倉儲設施,預計於104年完工,以杜絕揚塵的產 生,並提升裝卸效率。

#### 港區設置空氣品質自動連續監測設施

即時顯示臺北港區空氣品質情形,並適時進 行各項污染防制工作。

### Port of Taipei – Newly emerged port on reclaimed land

#### Land Reclamation of the Business and Container Center at the Port of Taipei

48.3 hectares of land is scheduled to be reclaimed by 2015 as the storage area for dredged silt, which will be reutilized, as well as leftover earth from public construction projects in order to resolve the issue of earth stockpiles.

#### Enclosed storage system

The First Bulk and Sundry Goods Terminal of the Port of Taipei is equipped with an enclosed coal and gravel unloading facility, while the Second Bulk and Sundry Goods Terminal also features an enclosed storage facility that is slated for completion in 2015. The system is designed to mitigate dust pollution and enhance unloading efficiency.

### Automated real-time air quality monitoring system

The automated system provides real-time air quality readings for the Port of Taipei so that pollution control and prevention measures can be executed accordingly.

## 蘇澳港一綠色經濟新亮點

#### 招募綠能產業進駐

蘇澳港在e化經營環境下,提升加值效率功能 , 並配合自由貿易港區發展, 積極招商, 鼓勵綠 色廠商進駐以帶動地區經濟。

#### 綠色觀光發展

發展地方綠色觀光產業,配合宜蘭縣政府規 劃,開放空間讓民眾參與海洋遊憩及親水活動 並透過大門整修及移山路擴寬、花台圍牆設置等 ,重新打造觀光新亮點。

### Port of Su-Ao - New green economic spotlight

#### Solicitation of green industries

Under a digitized management environment, the Port of Suao has increased its efficiency and functionality; furthermore, in conjunction with the development of the FTZ, green manufacturers are actively solicited to stimulate the local economy.

#### Development of green tourism

In collaboration with the Yilan County Government, the local green tourism industry will be developed, where spaces will be opened up for the public to partake in marine recreation and water activities. In addition, by restoring the main gate, expanding Yishan Rd. and constructing wall blocks, a new tourism spotlight will be



### 花蓮港一環境友善措施

#### 水撲滿一水資源有效利用

花蓮港因地勢優勢,設置小型攔截槽,將地 表水匯集至蓄水池儲備,減少對自來水之需求量 ;12座蓄水池收集之地表水容積總和為1,868噸 ,供港區各式洗滌、噴灌、沖洗使用,每年約省 水60萬噸。

#### 港區綠美化及公園化-4.6公頃港埠用地綠美化

臨港週邊道路旁4.6公頃港埠用地,廣植樹木 綠美化,建構成為南濱公園至七星潭16公里之「 臨港濱海自行車道」,是民眾休閒遊憩之綠帶。

### Port of Hualien - Eco-friendly measures

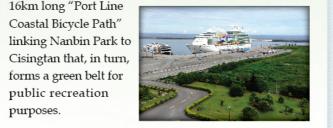
#### Water bank-efficient water usage

Thanks to its geographic advantage, small catchment tanks are created at the Port of Hualien to collect surface water into reservoirs in order to reduce tap water consumption. In total, 12 reservoirs hold 1,868 tons of surface water for the washing, spraying, sprinkling and rinsing needs of the port, saving approximately 600,000 tons of water each year.

#### Port greening and beautification - 4.6 hectares of port area transformed into a green park

4.6 hectares of space around the port roads are cultivated with trees to beautify the environment and create the

16km long "Port Line Coastal Bicycle Path" Cisingtan that, in turn, forms a green belt for public recreation purposes.



## 高雄港一綠色科技生態港

#### 第六貨櫃中心-綠色科技碼頭

高雄港第六貨櫃中心從基礎建設、各項機具 、設施、碼頭作業到櫃場作業之各項流程,均採 用最先進的節能與資源回收再利用技術,如採用 先進的雙起升橋式起重機,提升裝卸效率,大幅 降低船舶滯港時間;設置「船舶岸電系統(AMP )」,減少船舶燃油,降低二氧化碳排放及空氣 汙染排放。本區行政大樓為國內首座取得綠建築 標章之專業貨櫃碼頭。

### Port of Kaohsiung - Green EcoPort

#### Container Terminal No.6 - Green technology berth Container Terminal No.6 at the Port of Kaohsiung

employs the latest, cutting-edge, energy saving and recycling technologies in terms of infrastructure, various rigs, facilities and SOPs from the berth to the container vard etc. For instance, the state-of-the-art Dual-Hoist Quayside Gantry Crane has increased efficiency and dramatically reduced berthing time. Alternative Maritime Power (AMP) is installed to decrease ship fuel consumption as well as CO2 and pollution emissions. The port's administration building makes the Port of Kaohsiung the first professional container berth to receive the green building certificate.



## 臺中港-為了環境的努力

#### 藍帶計畫

臺中港為促進海線地區觀光發展,規劃建置 約11公里之自行車道,提供民眾各式景觀設計 欣賞風力發電景觀及溼地生態等多樣性之休閒遊

#### 與港區業者合作,鼓勵港區設備升級降低污染

臺中港與安順公司合作興建密閉式煤倉,總 投資8.3億元,其中機械一貫化卸儲轉設備及污染 防治設備可提高卸煤效率,改善卸煤碼頭污染的

### Port of Taichung – Striving to preserve the environment

#### Blue Belt Project

In order to foster coastal tourism development, the Port of Taichung has established an 11km bicycle path to allow the public to appreciate various landscape designs and diverse recreational spaces along the route such as wind power generators and wetland ecology.

#### Collaborations are sought with businesses in the port area to encourage equipment upgrades in order to minimize pollution.

The Port of Taichung has joined forces with An Shuen to construct an enclosed coal storage facility at a cost of NT\$830 million. In particular, the mechanical standardized unloading/storage equipment and pollution prevention

facility are able to increase coal unloading efficiency and improve the problem of coa terminal pollutio



#### 三方合作基隆港田寮河截流站

基隆港因長期都市生活汙水及田寮河、旭川 河等排水溝渠匯入, 使基隆港漸漸失去原有親水 風貌。

基隆港務分公司與環保署及基隆市政府攜手 合作,共同為基隆田寮河及旭川河整治努力,提 供場地建設截流站,改善水質,工程歷時4餘年 ,於民國102年6月30日完工,還給民眾及旅客 一個乾淨不再惡臭的田寮河及基隆港

### Port of Keelung - Transformation through collective endeavors

#### Tripartite collaboration to create Tianliao River Interception Station at the Port of Keelung

Due to the discharge of municipal waste water into the Tianliao River and the Xuchuan River, the Port of Keelung has lost the original appearance of its

Working hand in hand with the EPA and Keelung City Government, Port of Keelung TIPC has strived to dredge the Tianliao and Xuchuan Rivers in Keelung by providing venues to build interception stations in order to improve water quality. After more than 4 years of construction, the project was finally completed on June 30, 2013, thereby giving a cleaner Tianliao River and Port of Keelung to citizens and travelers.



## 臺灣港務公司七太商港位置圖 Location of TIPC International Ports

