Promote the Sustainability of Port Industry

Best Practices of Green Port Development

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APSN at A Glance

Established by APEC Leaders at its 14th Meeting

2006

18 NOVEMBER 2006, HANOI, VIETNAM

The APSN was initiated and endorsed by all leaders at the 14th APEC Economic Leaders' Meeting held in Viet Nam in 2006, established under the auspices of APEC in 2008, supported by APEC Transportation Ministerial Meeting and all member economies. Currently, 18 APEC member economies have joined the APSN as Council Members.
APSN COUNCIL MEMBERS

18 Council Members
3 absent

Australia, Canada, China, Hong Kong, China, Indonesia, Republic of Korea, Malaysia, Papua New Guinea, Peru, The Philippines, Singapore, Chinese Taipei, Thailand, Viet Nam, The United States, New Zealand, Russia
Goals of APSN

Networking for Stronger Port Industry and Better Community

ONE
Promote the development of APEC Port industry

TWO
Encourage capacity-building and information sharing

THREE
Bridge between APEC port and competent authorities

FOUR
Encourage enhanced safety, security, efficiency and environment
The Secretary General
Mr. Fei Weijun, China
The 1st Vice President
Mr. Tan Cheng Peng, Singapore
The 2nd Vice President
Mr. Marc-Yves Bertin, Canada
President
APSN Projects and Studies:

- APEC Port Development Reports
- Best Practices on Green Port
- Best Practices on Port Performance
- Digitization Impacts on Port Industry
- Newsletters
Roadmap to develop green port
Platform for best practices sharing
Promote port’s overall competitiveness
Improve sustainable development capacity

GPAS (Green Port Award System)
A green evaluation system for ports in the APEC region, developed by APSN, aim to encourage green and sustainable development, strengthen social and environmental awareness
# GPAS Indicator System

<table>
<thead>
<tr>
<th>Primary Indicator</th>
<th>Secondary Indicator</th>
<th>Reference Standard</th>
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</thead>
<tbody>
<tr>
<td>Commitment and Willingness (25%)</td>
<td>Green Port Awareness and Willingness (60%)</td>
<td>(1) Green strategy or development plans</td>
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<td></td>
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<td>(2) Green support funding</td>
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<td></td>
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<td>(3) Green annual reports</td>
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<td></td>
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<td>(4) Others</td>
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<tr>
<td></td>
<td>Green Port Promotion (40%)</td>
<td>(1) Green training programs</td>
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<tr>
<td></td>
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<td>(2) Green promotion campaigns</td>
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<td></td>
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<td>(3) Others</td>
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<tr>
<td>Action and Implementation (50%)</td>
<td>Clean Energy (15%)</td>
<td>(1) Using renewable energy sources</td>
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<tr>
<td></td>
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<td>(2) Using of LNG</td>
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<td></td>
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<td>(3) Using cold ironing (shore power)</td>
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<td></td>
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<td>(4) Others</td>
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<tr>
<td></td>
<td>Energy Saving (30%)</td>
<td>(1) Using energy-saving devices &amp; technologies</td>
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<tr>
<td></td>
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<td>(2) Optimizing power supply system</td>
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<td></td>
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<td>(3) Others</td>
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<tr>
<td></td>
<td>Environmental Protection (40%)</td>
<td>(1) Air pollution prevention</td>
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<td></td>
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<td>(2) Noise control</td>
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<tr>
<td></td>
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<td>(3) Waste treatment (liquid and solid)</td>
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<td>(4) Others</td>
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<tr>
<td></td>
<td>Green Management (15%)</td>
<td>(1) Green environment management system</td>
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<tr>
<td></td>
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<td>(2) Green performance assessment</td>
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<tr>
<td></td>
<td></td>
<td>(3) Others</td>
</tr>
<tr>
<td>Efficiency and Effectiveness (25%)</td>
<td>Energy Saving (40%)</td>
<td>(1) Energy consumption reduction</td>
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<tr>
<td></td>
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<td>(2) Renewable energy increment</td>
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<tr>
<td></td>
<td></td>
<td>(3) Others</td>
</tr>
<tr>
<td></td>
<td>Environmental Protection (60%)</td>
<td>(1) Air quality improvement</td>
</tr>
<tr>
<td></td>
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<td>(2) Noise control result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) Liquid &amp; solid pollution control</td>
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<tr>
<td></td>
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<td>(4) Others</td>
</tr>
</tbody>
</table>

### Top Environmental Concerns:

- Air Pollution
- Waste Treatment
- Energy saving
- Clean Energy
- Community Relationship
No, we are not positioning you with a green ruler!
23 experts from 13 economies, The GPAS Evaluation Committee, no less than 7 experts, follow a rule of conflict of interest.
The History of GPAS

2011
Green Port
SAN FRANCISCO, USA

2012
Green Ports: Time for Action & Innovation
PHUKET, THAILAND

2013
Green Shipping and Supply Chains
HONG KONG, CHINA

2014
8 Ports from 6 APEC Economies

2015
Pilot Projects

2016
Officially

HONG KONG, CHINA
GPAS 2016 Winners

- Bangkok Port, Thailand
- Jurong Port, Singapore
- Beilun 2nd Container Terminal, Ningbo Zhourshan Port, China
- Port Klang, Malaysia
- Port of Singapore, Singapore
- Port of Tanjung Pelepas, Malaysia
- Sixth Port Branch, Qinhuangdao Port, China
GPAS 2017 Winners

- Bintulu Port, Malaysia
- Chiwan Container Terminal Co., Ltd, China
- Johor Port Authority, Malaysia
- Port of Batangas, The Philippines
- PSA Singapore, Singapore
- Shekou Container Terminals Ltd, China
- Tan Cang Cat Lai Port, Viet Nam
GPAS 2018 Winners

- Bangkok Port, Port Authority of Thailand
- Jurong Port Pte Ltd, Singapore
- Kai Tak Cruise Terminal, Hong Kong China
- Port of Singapore (MPA), Singapore
- Port of Cagayan de Oro, The Philippines
- Xiamen Ocean Gate Container Terminal, China
- Port of Taipei, Chinese Taipei
- SIPG Shangdong Branch, China
- Xiamen Hairun Container Terminal, China
Objective: Bridge the Gap Between the Expectations and Practice

- Valuable for ports willing to be green and sustainable
- Timely for GPAS to update
- Platform for stakeholders to network
1. **Commitment and Willingness Best Practices**

Green Port Awareness and Willingness

1. Green strategy or development plans
2. Green support funding
3. Green annual reports
4. Others
1. Commitment and Willingness

Green Port Policy
- Environment
- Community Engagement
- Promote Sustainability

Green Procurement Policy
Promoting Workshops

JPA Green Port Policy - “Promote Sustainability” element

x 2. JPA Green Procurement Policy

Green Procurement Awareness program

OVERALL OBJECTIVE AND BASIC PROGRAM

Overall Objective 1:
To implement sustainable practices in the port

Basic Program:
1. To develop programs to ensure that the balance between port development and the environment is maintained.
2. To keep parties involved informed regarding the port activities within the context of sustainability.
3. To promote a variety of incentive programs for port community that relates to sustainability.

The Green Port Policy outlines some simple principles, strategies and practices in areas where port development and operation can be both environmentally friendly and commercially viable. The Green Port Policy suggests some proactive approaches and simple solutions where impacts on the local community and the environment can be better managed.

**JPA GREEN PORT POLICY **

Johor Port Authority (JPA)

GREEN PORT POLICY

JPA GREEN PORT POLICY serves as a guide for decision making and establishing a framework for environmentally friendly port development and operation. It is our aspiration that the Green Port Policy will act as a catalyst towards more sustainable port operation and development in Malaysia.
1. Commitment and Willingness Best Practices

Various Green Port Promotion events to promote national and international policies and programs, to raise the awareness of participating sustainable activities, and to raise the awareness on individual's role on sustainable development.
2. Action and Implementation
Best Practices

Clean Energy

- Using renewable energy sources
- Using of LNG
- Using cold ironing (shore power)
- Others
2. Action and Implementation
Best Practices

Clean Energy
* Using renewable energy sources
* Using of LNG
* Using cold ironing (shore power)
* Others

voltages of 6.6KV and 0.44KV for broader usage.
Energy Saving

- Using energy-saving devices & technologies
- Optimizing power supply system
- Others

Green Diagram of KTCT
Energy Saving

- Using energy-saving devices & technologies
- Optimizing power supply system
- Others

Energy Feedback & Storage
Environmental Protection

- Air pollution prevention
- Noise control
- Waste treatment (liquid and solid)
- Others, e-waste

Relocated 2,300 out of 2,800 corals colonies to preserve marine biodiversity
Environmental Protection

- Appendix 28. JP use of conveyor, grab and cargo hopper are optimized for any dust generated cargo
Environmental Protection

- Air pollution prevention
- Noise control
- Waste treatment (liquid and solid)
- Others
Environmental Protection

A 38 million RM project, 2017-2022

To establish an eco-tourism destination that strives to offer environmentally responsible travel products.

Equitable distribution of the economic benefits of growth among the local community.
Thanks!