Green Ports: Malaysia

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Impacts of pollution from ports and shipping

- Air, water, and noise pollution causing environmental degradation and health issues
- Threats to local marine species
- Destruction of marine ecosystems/habitats/ecology
- Negative impacts on livelihood of locals
- High cost of clean-up
- Bad image for ports and host states/countries
# Malaysian Ports in the Global Arena

<table>
<thead>
<tr>
<th>Ports</th>
<th>Ranks</th>
<th>Volume (Million TEUs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai, China</td>
<td>1</td>
<td>36.54</td>
</tr>
<tr>
<td>Singapore</td>
<td>2</td>
<td>30.92</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>5</td>
<td>20.07</td>
</tr>
<tr>
<td>Busan, South Korea</td>
<td>6</td>
<td>19.45</td>
</tr>
<tr>
<td>Jebel Ali (Dubai), UAE</td>
<td>9</td>
<td>15.60</td>
</tr>
<tr>
<td>Port Klang, Malaysia</td>
<td>12</td>
<td>11.89</td>
</tr>
<tr>
<td>Kaohsiung, Taiwan</td>
<td>13</td>
<td>10.26</td>
</tr>
<tr>
<td>Port of Tanjung Pelepas, Malaysia</td>
<td>17</td>
<td>9.10</td>
</tr>
</tbody>
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World Shipping Council, 2015
Malaysian Ports

Westports, Port Klang
• 17 berths with 15-17.5 metres depth alongside
• 55 gantry cranes, 163 RTGs and 460 prime movers.
• CMA-CGM (World’s 3rd largest container line) as the principal user

Port of Tanjung Pelapas
• 14 berths with 16 – 18 metres depth alongside
• 57 gantry cranes, 200 RTGs and 480 prime movers
• Mearsk shipping line (world’s largest) as principal user

These two Malaysian Ports won the Green Port Award System of APEC Port Services Network (APSN)
Green port policy in Malaysia

- Malaysia is committed to reduce its carbon emissions level by 40% from 2005 GDP levels by 2020.
- Ports facilitate 95% of Malaysia’s international trade, and are expected to play a part to attain this target.
- As the nation’s economy and trade grow, ports will be busier, and must therefore work at minimising their emissions and pollution.

Development of a Green Port Policy
Green port initiatives

- Study of Fuel Quality of Ships in Ports
- Energy, Electricity & Fuel Saving
- Environment Initiatives
- Ballast Water Management
- Tackling oil and chemical spills
- Port Safety, Health and Environmental Management System (PSHEMS)
Study of fuel quality of ships in ports

• Comply with MARPOL Annex VI – Prevention of Air Pollution from Ships
• Survey on the various types of ships coming to Malaysian Ports
• Shore power to reduce emissions in Malaysian Ports
Energy, electricity and fuel saving

- VRF Air-Conditioner System: To reduce greenhouse gases emission
- Energy Saving Quay Crane Lighting: To reduce carbon dioxide ($CO_2$) emissions
- Retrofitted of RTG to E – RTG: To reduce diesel consumption
- LED System at Port Areas
Environmental initiatives

- Adopting marine sanctuary area
- Collaborating with Malaysian Nature Society
- Beach cleaning
- Mangrove planting
- Environmental monitoring and waste management
Ballast water management

• Collaboration with Malaysian University to conduct baseline study of ballast water management at designated ports on:
  – Heavy metals in sediment samples
  – Hydrocarbons (oil, grease and hydrocarbon) in sediment samples
  – Marine biological in seawater and sediment samples
  – Bacteria in water sample

• Awareness of Ballast Water Management for ship owners
Other initiatives

• Tackling oil and chemical spills: Emergency Response Plan  
  – Joint cooperation with Singapore

• Port Tanjung Pelapas: Port Safety, Health and Environmental Management System (PSHEMS)  
  – facilitated by PEMSEA under the SDS-SEA Project
Thank you

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