PORTS IN SOUTH EAST ASIA: ISSUES AND CHALLENGES

NAZERY KHALID
Research Fellow, Maritime Institute of Malaysia

24 April 2007
PRESENTATION OUTLINE

- Role of ports.
- Port economics 101.
- Overview of S.E.A. ports.
- Global trends and impacts on S.E.A. ports.
- Issues and challenges for S.E.A. ports: Swimming in the sea of changes.
- The way forward.
ROLE OF PORTS

- Conduit between sea and land transport where goods and passengers are loaded and unloaded.
- Facilitate trade.
- Part of the logistics chain linked with other transport modes and supply chain components.
- Provide shelter and services for ships.
- Catalyst of growth to industries and businesses.
Economic benefits of ports must justify their huge capital outlay.

Ports services are derived demand.

Users include shipping lines, shippers, freight forwarders, ancillary service providers.

Ports gain revenue from ships calling and cargo processed.

At ports, time is money – hence the mantra of keeping waiting and berthing time short for ships, and improving speed of cargo handling.
FACTORS AFFECTING PORT CALLS

- Trade flow, demand-supply and the need for ‘treatment’ of raw materials / commodities / products.
- Quality of trade transportation and ancillary services.
- Competitiveness of ports.
- Tariff structure / incentives offered.
- Socio-political influences.
FACTORS AFFECTING PORT CALLS

- Trade / production / distribution patterns.
- Overall transit cost.
- Weather / natural conditions.
- Origin & destination of cargo.
- Type & quantity of cargo.
- Port services cost.
- Port and logistics facilities.
TRENDS IN TRADE TRANSPORT

- Higher degree of containerization.
- Multimodal transport.
- Sophisticated supply chain management.
- Intensive use of IT in cargo handling, processing and tracking.
- One-stop shipping, Free Trade Zone & distripark concepts.
- Ports as catalysts of trade & economy.
OVERVIEW OF S.E.A. PORTS

- Critical trade facilitators.
- Vital components of transport network.
- Interaction points with other transport modes.
- Strategic role in the supply chain linking suppliers, manufacturers & consumers.
- Disparity in capacity & development.
- Make up ‘hub & spokes’ port networks.
S.E.A. REGION’S GROWING TRADE & MARITIME CLOUT

- S.E.A is one of the world’s fastest growing economic regions.
- Intra-ASEAN trade grew from US$123.8 bil. in 1995 to US$304.9 bil. in 2005.
- 3 S.E.A. nations in UNCTAD’s list of top 25 maritime nations in 2005. 4 S.E.A. ports in list of top 20 container ports.
- S.E.A. maritime rise epitomizes shift of maritime power from West to East.
TYPES OF S.E.A. PORTS

- Hub ports
- Feeder ports
- Container ports
- Transshipment ports
- Passenger terminals
- Petrochemical terminals
- LNG terminals
- Fishing ports
EVOLUTION OF S.E.A. PORTS

Three major changes affecting the roles and operations of S.E.A. ports:

- End of passenger ship era (except cruise sector).
- Increasing size of ships.
- Advent of containerization.
## TOP ASIAN MARITIME NATIONS 2005

<table>
<thead>
<tr>
<th>World rank</th>
<th>Country</th>
<th>DWT as % of world tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Japan</td>
<td>14.52%</td>
</tr>
<tr>
<td>4</td>
<td>China</td>
<td>7.22%</td>
</tr>
<tr>
<td>7</td>
<td>Hong Kong SAR</td>
<td>4.84%</td>
</tr>
<tr>
<td>8</td>
<td>South Korea</td>
<td>3.27%</td>
</tr>
<tr>
<td>9</td>
<td>Taiwan PRC</td>
<td>2.69%</td>
</tr>
<tr>
<td>10</td>
<td>Singapore</td>
<td>2.53%</td>
</tr>
<tr>
<td>15</td>
<td>India</td>
<td>1.52%</td>
</tr>
<tr>
<td>World rank</td>
<td>Country</td>
<td>DWT as % of world tonnage</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>18</td>
<td>Saudi Arabia</td>
<td>1.25%</td>
</tr>
<tr>
<td>20</td>
<td>Iran</td>
<td>1.08%</td>
</tr>
<tr>
<td>21</td>
<td>Malaysia</td>
<td>1.06%</td>
</tr>
<tr>
<td>25</td>
<td>Indonesia</td>
<td>0.69%</td>
</tr>
<tr>
<td>26</td>
<td>Kuwait</td>
<td>0.56%</td>
</tr>
<tr>
<td>27</td>
<td>Philippines</td>
<td>0.55%</td>
</tr>
<tr>
<td>30</td>
<td>UAE</td>
<td>0.50%</td>
</tr>
<tr>
<td>31</td>
<td>Thailand</td>
<td>0.35%</td>
</tr>
</tbody>
</table>
### TOP ASIAN PORTS’ THROUGHPUT 2005

<table>
<thead>
<tr>
<th>World ranking</th>
<th>Port</th>
<th>Throughput (mil TEU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Singapore</td>
<td>23.19</td>
</tr>
<tr>
<td>2</td>
<td>Hong Kong</td>
<td>22.43</td>
</tr>
<tr>
<td>3</td>
<td>Shanghai</td>
<td>18.04</td>
</tr>
<tr>
<td>4</td>
<td>Shenzen</td>
<td>16.20</td>
</tr>
<tr>
<td>5</td>
<td>Busan</td>
<td>11.84</td>
</tr>
<tr>
<td>6</td>
<td>Kaohsiung</td>
<td>9.47</td>
</tr>
<tr>
<td>9</td>
<td>Dubai</td>
<td>7.62</td>
</tr>
</tbody>
</table>
## TOP ASIAN PORTS’ THROUGHPUT 2005

<table>
<thead>
<tr>
<th>World ranking</th>
<th>Port</th>
<th>2005 (mil TEU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Quingdao</td>
<td>6.31</td>
</tr>
<tr>
<td>14</td>
<td>Port Klang</td>
<td>5.54</td>
</tr>
<tr>
<td>15</td>
<td>Ningbo</td>
<td>5.19</td>
</tr>
<tr>
<td>16</td>
<td>Tianjin</td>
<td>4.81</td>
</tr>
<tr>
<td>18</td>
<td>Guangzhou</td>
<td>4.68</td>
</tr>
<tr>
<td>19</td>
<td>Tanjung Pelepas</td>
<td>4.17</td>
</tr>
<tr>
<td>20</td>
<td>Laem Chabang</td>
<td>3.81</td>
</tr>
</tbody>
</table>
**ASIA-EUROPE & ASIA-N. AMERICA (ANNUAL % TEU GROWTH)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia- Europe</td>
<td>7.4</td>
<td>10.3</td>
<td>12.6</td>
<td>14.5</td>
<td>17.6</td>
</tr>
<tr>
<td>Europe-Asia</td>
<td>6.9</td>
<td>5.5</td>
<td>5.9</td>
<td>7.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Asia-N.America</td>
<td>7.7</td>
<td>8.1</td>
<td>9.4</td>
<td>12.1</td>
<td>12.5</td>
</tr>
<tr>
<td>N.America-Asia</td>
<td>5.0</td>
<td>5.1</td>
<td>5.6</td>
<td>5.6</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*Global Insight, World Trade Services*
WHERE THERE ARE PORTS, THERE ARE SHIPS

- Shipping trends influence port trends.
- Global trends in shipping:
  - Containerization
  - Economies of scale
  - Concentration on ‘megahubs’
  - Mergers & acquisition
  - Shipping companies buying into ports & logistics companies.
FACTORS INFLUENCING PORTS IN S.E.A.

Globalization & liberalization

- Globalized markets, outsourcing and changing production base have boosted Asia trade & demand for maritime transport.
- More trade means bigger investment in ports to enlarge capacity to facilitate greater trade volume.
- ‘Flattening’ of markets due to liberalization result in greater need for port connectivity.
FACTORS INFLUENCING PORTS IN S.E.A.

The China factor

- China’s ‘economic miracle’ has contributed immensely to S.E.A. economies / trade / port throughput.
- S.E.A.- Sino trade was $160.8 bil. in 2006.
- FTA being negotiated b/w China-ASEAN.
- More S.E.A-China shipping services expected in the near future to cater to growing trade.
FACTORS INFLUENCING PORTS IN S.E.A.

Changing ownership structures

- Wave of consolidation in ports / shipping affects port business in S.E.A. shore.
- It has changed the way ports are owned / operated / developed & the way ships are routed.
- Consolidation brings greater economies of scale and better use of resources.
FACTORS INFLUENCING PORTS IN S.E.A.

Geopolitics

- Peace & stability crucial to S.E.A.’s economies, maritime trade & port prosperity.
- Regional initiatives in trade and transport will boost maritime trade & port growth.
- Opening up of economies i.e. Vietnam’s accession into WTO & FTAs will contribute to greater trade in S.E.A.
FACTORS INFLUENCING PORTS IN S.E.A.

Global / regional economy

- Rising economic prosperity & results in higher income & greater consumer demand.
- Bright prospect of growing world economy & container trade.
- Shift into manufacturing / trade among developing S.E.A. economies.
- Improved trade & transport infrastructures.
FACTORS INFLUENCING PORTS IN S.E.A.

Inland transport

- Improvements in intermodal linkages with ports in several S.E.A. countries.
- Supply chain and transport infrastructures in the region has grown in capacity & sophistication.
- S.E.A.’s logistics & transport sector are very dynamic markets.
FACTORS INFLUENCING PORTS IN S.E.A.

ASEAN Free Trade Area (AFTA)

- Main objectives:
  - to boost intra-ASEAN trade.
  - to attract more FDI into the region.
  - to make S.E.A. a globally competitive production base.
TRADE & TRANSPORT FACILITATION UNDER AFTA


Objectives:
- to facilitate transportation of goods in transit in support of AFTA ideals.
- to simplify & harmonize trade, transport & Customs regulations.
- to establish efficient regional transit transport system.
TRADE & TRANSPORT FACILITATION UNDER AFTA

ASEAN Vision 2020 (1997)

Objectives:
- to develop an integrated & harmonized trans-ASEAN transportation network.
- to promote open sky policy, develop multimodal transport and facilitate goods in transit.

Objectives:
- to develop a maritime / shipping policy for ASEAN to cover transshipment and enhance ASEAN port competitiveness.
- to liberalize maritime transport.
- to integrate maritime transport in the intermodal & logistics chain.
Objectives:

- to develop a seamless multimodal transport network incorporating interfaces such as inland terminals, container stations and cargo clearance facilities.

- to improve transport systems and logistics services quality and reducing transaction costs.
AFTA’S IMPACT ON MARITIME SECTOR

- Alignment & adoption of international standards in trading.
- Change in trade patterns. Bilateral trade has especially prospered.
- Increase in trans-border activity has spurred investment flexibility.
- Reduction of tariff for imports and promotion of export supporting measures.
## INTRA-ASEAN TRADE 1993-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Trade value (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>82.4</td>
</tr>
<tr>
<td>1995</td>
<td>123.8</td>
</tr>
<tr>
<td>1997</td>
<td>150.0</td>
</tr>
<tr>
<td>1999</td>
<td>131.5</td>
</tr>
<tr>
<td>2001</td>
<td>152.1</td>
</tr>
<tr>
<td>2003</td>
<td>159.5</td>
</tr>
<tr>
<td>2005</td>
<td>304.9</td>
</tr>
</tbody>
</table>
ISSUES FACED BY S.E.A. PORTS

- Huge investment and capital expenditure to build, maintain, upgrade and expand ports.
- Under-utilization of capacity and facilities.
- Low productivity and efficiency.
- Poor integration with other transport modes.
- Under-developed ancillary services.
- Low utilization of IT / EDI.
- Lack of customer-focused.
- Poor overall competitiveness.
CHANGING BUSINESS APPROACH

→ S.E.A. ports must achieve better integration with other transport modes.

→ Global port system adopts a hub and spoke model. S.E.A. ports need to adopt to this dynamics.

→ More incentives need to be offered to attract shipping lines to S.E.A. ports.

→ S.E.A. ports must give greater focus on speed, efficiency, safety, connectivity.
S.E.A. ports should no longer be administered but *managed*.

S.E.A. port authorities must become more business-minded.

Free market dynamics demand S.E.A. ports to be competitive.

S.E.A. ports must go out and get clients. The days of ‘build it and they will come’ are long over.
CHANGING PORT OPERATIONS

- Bigger, more sophisticated ships need adept handling.
- Greater pressure to beef up facilities improve productivity.
- Greater need to improve interaction with other transport modes.
- Greater need for skilled workforce.
- More intensive use of IT, EDI.
CHANGING PORT OPERATIONS

- Economies of scale in terms of speed and size of ships.
- Specialization of types of ships.
- Physical changes in types of cargo and greater focus on containerization.
- Processing, handling, storage and delivery of cargo need to cater to greater volume at faster turnaround time.
CHANGING PORT OWNERSHIP

- More privatization of ports.
- Changing ownership of private ports has given more business focus on port operations.
- More ports managing other ports to widen revenue base.
- More shipping companies buying into ports.
- More different types of shareholders owning stake in ports.
S.E.A. ports need to improve, expand and boost competitiveness to cater to growing regional and global trade.

They must develop human resource along with infrastructure.

They should focus more on enhancing the use of technology and boosting safety, productivity and efficiency.

They should emphasize on integrating with other transport modes.
FOR S.E.A. PORTS TO PROSPER...

- Trade-dependent S.E.A. nations need good transport system to cater to more trade.
- Efficient logistics network is needed to support regional integration across the supply chain.
- Huge investment is needed to bridge the development gaps among the ports and to improve intermodal links to facilitate greater regional trade.
- S.E.A. nations must reform archaic maritime regulations and institutional set-up.
THE ROAD AHEAD

- Outlook for S.E.A.’s container trade should remain bullish in the near future.
- S.E.A.’s ports / shipping companies must improve competitiveness and capacity.
- Many factors will exert their influence on S.E.A. container trade / shipping.
- Plenty of opportunities in intra-Asian trade that S.E.A. ports should reap.
- Competitiveness will become more intense!
- The fate of S.E.A. ports are intertwined with each other.
THANK YOU

nazery@mima.gov.my

www.mima.gov.my