Supply Chain as a Geopolitical Weapon
Integrating Capabilities in Regional and Global Logistics

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Agenda

- Global shipping patterns
- The changing face of Asian logistics
- Outlook: the promises and challenges of growth
- Advice for shippers and carriers
Global Shipping Patterns
ASEAN is the world’s largest export market

Value of exports by country or region
(US$ in millions, 2005)

Source: ASEAN Trade Data Base
Thailand plays a major role in ASEAN trade

Value of Imports by Importing Country (US$ in millions, 2005)

<table>
<thead>
<tr>
<th>Country</th>
<th>Intra-ASEAN</th>
<th>Extra-ASEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Share to country total</td>
</tr>
<tr>
<td>Brunei</td>
<td>739</td>
<td>49%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>1,027</td>
<td>36%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>17,330</td>
<td>30%</td>
</tr>
<tr>
<td>Lao</td>
<td>362</td>
<td>51%</td>
</tr>
<tr>
<td>Lao</td>
<td>362</td>
<td>51%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>29,164</td>
<td>25%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>896</td>
<td>54%</td>
</tr>
<tr>
<td>Philippines</td>
<td>8,874</td>
<td>18%</td>
</tr>
<tr>
<td>Singapore</td>
<td>52,148</td>
<td>26%</td>
</tr>
<tr>
<td>Thailand</td>
<td>21,552</td>
<td>18%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>8,937</td>
<td>27%</td>
</tr>
<tr>
<td>ASEAN</td>
<td>141,030</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: ASEAN Trade Data Base
The Trans-Asia Railway connects ocean gateways and inland areas
Asian highway routes extend inland reach
Bangkok – a traditional and growing gateway
The changing face of the Asian logistics
Rapid growth of Bangkok and Laem Chabang
Laem Chabang in the big leagues

World Port Cargo Ranking 2005

Singapore
Hong Kong
Shanghai
Shenzhen
Pusan
Kaohsiung

Source: Hong Kong Port Development Council
Laem Chabang already dominates Thailand’s container volume

Source: Laem Chabang International Terminal Co., Ltd
Laem Chabang International Terminal (LCIT) is emerging as the region’s transshipment hub

Number of Vessel Calls

<table>
<thead>
<tr>
<th>Year</th>
<th>TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>200,000</td>
</tr>
<tr>
<td>1999</td>
<td>400,000</td>
</tr>
<tr>
<td>2000</td>
<td>600,000</td>
</tr>
<tr>
<td>2001</td>
<td>800,000</td>
</tr>
<tr>
<td>2002</td>
<td>1,000,000</td>
</tr>
<tr>
<td>2003</td>
<td>1,200,000</td>
</tr>
<tr>
<td>2004</td>
<td>1,400,000</td>
</tr>
<tr>
<td>2005</td>
<td>—</td>
</tr>
<tr>
<td>2006</td>
<td>—</td>
</tr>
</tbody>
</table>

Source: Laem Chabang International Terminal Co., Ltd
Greater Mekong will undergo large-scale road transport network projects

Source: Office of the National Economic and Social Development Board (NESDB)
Thailand: significant investment in transportation infrastructure

- 5-year infrastructure budget
  - Railway system – 900 billion baht (US$22.5 billion)
  - Bullet train – 140 billion baht (US$3.5 billion)
  - New roads & highways – 400 billion baht (US$10 billion)
  - Infrastructure for Bangkok’s new satellite city – 100 billion baht (US$2.5 billion)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of projects</th>
<th>Total cost (Mill. Baht)</th>
<th>Government</th>
<th>Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Resource</td>
<td>11</td>
<td>41,497</td>
<td>41,497</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>9</td>
<td>240,555</td>
<td>215,386</td>
<td>25,169</td>
</tr>
<tr>
<td>Communication</td>
<td>4</td>
<td>30,889</td>
<td>30,889</td>
<td></td>
</tr>
<tr>
<td>Public Utilities</td>
<td>3</td>
<td>8,924</td>
<td>8,924</td>
<td></td>
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<tr>
<td>Energy</td>
<td>7</td>
<td>67,775</td>
<td>67,775</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34</strong></td>
<td><strong>389,640</strong></td>
<td><strong>364,471</strong></td>
<td><strong>25,169</strong></td>
</tr>
</tbody>
</table>

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Major highway infrastructure projects

- Thailand has 60,000 km of regular highways
- 3 main bus terminals
  - Northern and Northeastern Terminal
  - Southern Terminal
  - Eastern Terminal
- Major highway projects
  - Four-lane highways to all regions of Thailand
  - New highway from Chiang Mai to Mae Hong Son
  - 92-kilometer motorway from Bangkok to Chaam and Hua Hin

Source: US Embassy in Bangkok
Increasing investments in port development

- Bangkok – port capacity approximately 1.3 million TEUs per year, expansion of storage areas is underway.
- Laem Chabang – port capacity approximately 3.04 million TEUs per year, after completion of Phase 2 development, total capacity reaches 10.5 million per year.
- Map Ta Phut – petrochemical complex, Phase 2 development project is underway.
Increasing investments in port development

- Chiang Saen and Chiang Khong – gateway to southern China, both ports are part of the Quadrangle Economic Cooperation Project to link trade of Thailand, China, Laos and Myanmar
- Songkhla Port – the only international port on the Southeast coast with capacity of 150,000 TEUs annually, serving transport to Malaysia. Its expansion plan includes modification of three existing berths and construction of fourth and fifth container berths
Increasing investments in port development

- Phuket Port – annual capacity 86,000 TEUs, the only international port on the West coast. Its expansion plan covers construction of a passenger wharf and a container berth.
- Narathiwat – plan to accommodate the AFTA Free Trade Zone and Export Processing Zone for halal food.
- Satoon – serves the growing trade with countries west of Thailand and to handle break bulk cargo and containers.
Increasing investments in port development

- Ranong – opened in December 2003, expansion plan forecasts completion within 2 years to accommodate increased trade in South Asia, the Middle East and Europe, also provide links with Myanmar and other countries in the Indian Ocean

Source: Business in Asia
Outlook: the promises and challenges of growth
Thai ports in 10 years: a vision

- Strategic hub– economic centre and logistics hub in the Mekong region
- Strong economic and trade links – 9 priority sectors include energy, telecoms, tourism, environment, HRD, international trade, investment, agriculture
- Trade facilitator through its infrastructure and liberal policies
- Cost leader – reduced transport costs, facilitate mobility across borders, become major transportation hub, development of intra-Asia highway network
  - Mae Sai – Kyaington – JingHong – Kunming
  - ChiangKhong – LuangNamTha – JingHong – Kunming
  - Mukdahan – Savannakhet – DonghHa – Danang
  - Bangkok – PhnomPenh – HoChiMinh – VungTau
  - Trat – KohKong – Sihanoukville
  - MaeSod – Myawaddi – Mawlamyine - Yangon
- A strong leader

Source: National Economic and Social Development Board (NESDB)
Logistics challenges

• Differences in economic development and political stability
• Customs duties
• Language, complexity of documents, country-specific practices
• Currency and stability
• Taxation and regulation
• Shortage of experienced supply chain professionals
Logistics challenges (cont.)

• Developing e-Commerce capability, low visibility over cargo
• Complex, fragmented, and costly multi-level distribution channels
• Culture and mindset differences
• Lack of reliable and effective performance measurement
• Low forecast accuracy
• High inventory carrying costs
Advice for shippers and carriers

• Establish presence early (branches, liaison, etc.), grow with the market

• Know the market and culture, develop

• Develop good relationship with local government

• Focus on integrated logistics networks and end-to-end supply chains
Boston Strategies International is a global management consulting firm that helps market leaders achieve competitive advantage through supply chain management through:

- **Supply Market Analysis** that helps identify emerging issues that affect their supply chains
- **Supplier Enablement** that facilitates global growth and local content requirements
- **Supply Chain Optimization** that reduces project and life cycle costs