Laem Chabang Port’s Infrastructure Development & Connectivity

Laem Chabang Port
PORT AUTHORITY OF THAILAND
December 2016
Outline

○ Overview of Port Authority of Thailand and Laem Chabang Port Development

○ Laem Chabang Port Performance

○ LCP Latest Port Project Updates
Port Authority of Thailand (PAT) is a state enterprise under supervision of the Ministry of Transport.

PAT plays a significant role for serving industrial development and supporting international trade of the country.

PAT manages 5 major ports in Thailand, namely:
1. Bangkok Port
2. Laem Chabang Port
3. Chiengsaen Port
4. ChiengKhong Port
5. Ranong Port
Laem Chabang Port’s Development Area
อาณาบริเวณท่าเรือแหลมฉบัง
อาณาบริเวณท่าเรือแหลมฉบัง

Reclimation Area : 395 h.a. (Phase I and Phase II)

Relocation Area (including area renting out to IEAT) : 1,040 h.a.
อาณาบริเวณท่าเรือแหลมฉบัง

Reclamation Area : 395 h.a. (Phase I and Phase II)

Relocation Area (including area renting out to IEAT) : 1,040 h.a.
อาณาบริเวณท่าเรือแหลมฉบัง

Industrial Estate Authority of Thailand

Area Renting out to (EAT) : 130 h.a.

Relocation Area (including area renting out to (EAT) : 1,040 h.a.

Reclamation Area : 395 h.a. (Phase I and Phase II)
Laem Chabang Port has started the construction since 1986. At present, LCP has developed 2 phases.

Phase I has started the operation since 1991. Given the capacity of 4.3 million TEUs, the throughput in 2016 via Phase I is about 0.3 million TEUs, which exceeded the Basin I capacity.

Phase II has started the operation since 2000. Given the capacity of 6.8 million TEUs, the throughput in 2016 via Phase II is about 6.8 million TEUs.

<table>
<thead>
<tr>
<th></th>
<th>Basin I</th>
<th>Basin II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (m.)</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>Length (m.)</td>
<td>1,600</td>
<td>1,800</td>
</tr>
<tr>
<td>Depth (m.)</td>
<td>-14 MSL</td>
<td>-16 MSL</td>
</tr>
<tr>
<td>Breakwater (m.)</td>
<td>1,300</td>
<td>1,900</td>
</tr>
<tr>
<td>Accommodate (DWT.)</td>
<td>50,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Capacity (M.TEU)</td>
<td>4.3</td>
<td>6.8</td>
</tr>
</tbody>
</table>
Laem Chabang Port : Phase I

Laem Chabang Port Phase I

**Activities**
- Container
- Domestics
- Passengers & Ro-Ro
- Multi Purpose
- Agri-Bulk
- Ro-Ro
- Shipyards

<table>
<thead>
<tr>
<th>Basin I</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (m.)</td>
<td>400</td>
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<td>−14 MSL</td>
</tr>
<tr>
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</tr>
<tr>
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<td>50,000</td>
</tr>
<tr>
<td>Capacity (M.TEU)</td>
<td>4.3</td>
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</tbody>
</table>
Laem Chabang Port Phase II

Basin II

Width (m.) 600
Length (m.) 1,800
Depth (m.) –16 MSL
Breakwater (m.) 1,900
Accommodate (DWT.) 80,000
Capacity (M.TEU) 6.8

Total Capacity of Phase II
- Container = 6.8 m.TEU/year
- General Cargo = 318,000 Metric Tons/year
- Vehicles = 1 m. Units/year

Activities
- Container
- General Cargo & Ro-Ro
ผลการดำเนินงานของท่าเรือแหลมฉบัง
## Number of Vessel calls

<table>
<thead>
<tr>
<th>Type/Fiscal Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>7,527</td>
<td>7,453</td>
<td>6,443</td>
<td>9,242</td>
<td>9,889</td>
<td>10,030</td>
</tr>
<tr>
<td>Coastal</td>
<td>277</td>
<td>387</td>
<td>390</td>
<td>382</td>
<td>371</td>
<td>344</td>
</tr>
<tr>
<td>Ro/Ro</td>
<td>632</td>
<td>594</td>
<td>670</td>
<td>629</td>
<td>659</td>
<td>665</td>
</tr>
<tr>
<td>General Cargoes</td>
<td>85</td>
<td>86</td>
<td>77</td>
<td>68</td>
<td>94</td>
<td>91</td>
</tr>
<tr>
<td>Passenger</td>
<td>41</td>
<td>37</td>
<td>41</td>
<td>36</td>
<td>42</td>
<td>56</td>
</tr>
<tr>
<td>Lighter</td>
<td>401</td>
<td>326</td>
<td>230</td>
<td>320</td>
<td>122</td>
<td>92</td>
</tr>
<tr>
<td>Others</td>
<td>1,553</td>
<td>1,543</td>
<td>749</td>
<td>1,298</td>
<td>1,301</td>
<td>1,282</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,516</td>
<td>10,426</td>
<td>8,600</td>
<td>11,975</td>
<td>12,478</td>
<td>12,560</td>
</tr>
</tbody>
</table>

### Graph

- **Container**
- **Coastal**
- **Ro/Ro**
- **General Cargoes**
- **Passenger**

![Graph of vessel calls over years](image)
<table>
<thead>
<tr>
<th>Type/Fiscal Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports</strong></td>
<td>2.761</td>
<td>2.804</td>
<td>2.857</td>
<td>3.112</td>
<td>3.302</td>
<td>3.427</td>
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<tr>
<td><strong>Exports</strong></td>
<td>2.875</td>
<td>2.978</td>
<td>3.068</td>
<td>3.298</td>
<td>3.410</td>
<td>3.573</td>
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<tr>
<td><strong>Transshipment</strong></td>
<td>0.021</td>
<td>0.048</td>
<td>0.048</td>
<td>0.038</td>
<td>0.067</td>
<td>0.060</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5.658</td>
<td>5.830</td>
<td>5.974</td>
<td>6.458</td>
<td>6.779</td>
<td>7.060</td>
</tr>
</tbody>
</table>

(Million TEUs)

**Number of Throughput via LCP**

- **Transshipment**: 2011 - 0.021, 2012 - 0.048, 2013 - 0.048, 2014 - 0.038, 2015 - 0.067, 2016 - 0.060
In year 2014
Container Throughput of main ports in Thailand

- Bangkok port share 18.19%
- Laem Chabang share 77.34%
- About 95% of containers throughput shared by Bangkok Port & Laem Chabang port

8,350,901 T.E.U.s

BKP&LCP Market Share

Market Share of Container Throughput of main ports in Thailand 2014

- Bangkok Port 18%
- Laem Chabang Port 77%
- Private Ports 4%
- Songkla Port 1%
Since 2009 **LCP has been growing strongly at 7%** a year on average and gained more market share in ASEAN Ports which is around **6.58% in the year 2015.**
## Laem Chabang Port’s Ranking

<table>
<thead>
<tr>
<th>Rank</th>
<th>Port</th>
<th>Volume 2014 (M.TEU)</th>
<th>Volume 2013 (M.TEU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shanghai, China</td>
<td>35.29</td>
<td>33.62</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>33.87</td>
<td>32.6</td>
</tr>
<tr>
<td>3</td>
<td>Shenzhen, China</td>
<td>24.03</td>
<td>23.28</td>
</tr>
<tr>
<td>4</td>
<td>Hong Kong, S.A.R., China</td>
<td>22.23</td>
<td>22.35</td>
</tr>
<tr>
<td>5</td>
<td>Ningbo–Zhoushan, China</td>
<td>19.45</td>
<td>17.33</td>
</tr>
<tr>
<td>6</td>
<td>Busan, South Korea</td>
<td>18.65</td>
<td>17.69</td>
</tr>
<tr>
<td>7</td>
<td>Qingdao, China</td>
<td>16.62</td>
<td>15.52</td>
</tr>
<tr>
<td>8</td>
<td>Guangzhou Harbor, China</td>
<td>16.16</td>
<td>15.31</td>
</tr>
<tr>
<td>9</td>
<td>Jebel Ali, Dubai, United Arab Emirates</td>
<td>15.25</td>
<td>13.64</td>
</tr>
<tr>
<td>10</td>
<td>Tianjin, China</td>
<td>14.05</td>
<td>13.01</td>
</tr>
<tr>
<td>22</td>
<td><strong>Laem Chabang, Thailand</strong></td>
<td><strong>6.58</strong></td>
<td><strong>6.04</strong></td>
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</tbody>
</table>
Ro/Ro Operation in Laem Chabang Port
Port Facilities to Accommodate Transport of Car & Ro/Ro Vessels

- Yard rented to A5 for Car Parking
  - Capacity: 950,000 units/year

- A1
  - Capacity: 300,000 units/year

- Co
  - Capacity: 1,000,000 units/year
# Number of Cars transported via LCP

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>60,427</td>
<td>88,500</td>
<td>77,402</td>
<td>73,549</td>
<td>56,506</td>
<td>65,896</td>
</tr>
<tr>
<td>Exports</td>
<td>856,454</td>
<td>826,470</td>
<td>1,120,608</td>
<td>1,114,549</td>
<td>1,188,866</td>
<td>1,203,753</td>
</tr>
<tr>
<td>Total</td>
<td>916,881</td>
<td>914,970</td>
<td>1,198,010</td>
<td>1,188,098</td>
<td>1,245,372</td>
<td>1,269,649</td>
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<tr>
<td>Growth Rate (%)</td>
<td>4.00</td>
<td>-1.00</td>
<td>30.93</td>
<td>-0.83</td>
<td>4.82</td>
<td>1.90</td>
</tr>
</tbody>
</table>

**Bar Chart:**
- **Imports**
- **Exports**
# ปริมาณรถยนต์ที่ขนส่งผ่านท่าเรือแหลมฉบัง

<table>
<thead>
<tr>
<th></th>
<th>2555</th>
<th>2556</th>
<th>2557</th>
<th>2558</th>
</tr>
</thead>
<tbody>
<tr>
<td>รถยนต์นำเข้า</td>
<td>88,500</td>
<td>77,402</td>
<td>73,549</td>
<td>56,506</td>
</tr>
<tr>
<td>(สัดส่วน)</td>
<td>(10.00%)</td>
<td>(6.00%)</td>
<td>(6.19%)</td>
<td>(4.54%)</td>
</tr>
<tr>
<td>รถยนต์ส่งออก</td>
<td>826,470</td>
<td>1,120,608</td>
<td>1,114,549</td>
<td>1,188,866</td>
</tr>
<tr>
<td>(สัดส่วน)</td>
<td>(90.00%)</td>
<td>(94.00%)</td>
<td>(93.81%)</td>
<td>(95.46%)</td>
</tr>
<tr>
<td>รวม (คัน)</td>
<td>914,970</td>
<td>1,198,010</td>
<td>1,188,098</td>
<td>1,245,372</td>
</tr>
<tr>
<td>อัตราการเติบโต (%)</td>
<td>30.93</td>
<td>-0.83</td>
<td>4.82</td>
<td></td>
</tr>
</tbody>
</table>
Main Projects at Laem Chabang Port
Investment programme continued in development plan

Coastal Terminal (Terminal A)
Single Rail Transfer Operator (SRTO)
Development Project (Phase 3)
Coastal Terminal Development of Laem Chabang Port Project

Purpose

- To develop the coastal terminal for serving containers transported from/to LCP by coastal ship from southern port of Thailand or barge from inland waterway.
- To reduce the logistics cost of the country in compliance with the government’s policy, Ministry of Transport and Port Authority of Thailand.
- To reduce traffic congestion and offer the port users a cost-effective mode of transport.

Coastal Terminal (Terminal A)

Location: At the End of Basin 1
Project Area: 17.5 acres
Length (Meter): 150
Depth (Meter): -10
Vessel Size (DWT): 3,000
Capacity (Maximum): 300,000 TEUs/year
Single Rail Transfer Operator Development Project

**Purpose**

- To develop infrastructure and necessary facilities for serving the discharging/loading containers transported by rail within the port area. The project would largely help facilitate rail transfer in the future in response to the completion of double track construction project of State Railway Authority of Thailand (SRT). It would increase the handling capacity of rail transport in LCP from the existing of 500,000 TEUs/year to 2 million TEUs/year.
- To increase the efficiency of rail transfer in LCP, and subsequently make the operation faster and safer.
- To support the SRT’s double tracking system project linking from Chachoengsao Province to Laem Chabang Railway Station.
- To reduce the logistics cost of the country in compliance with the government’s policy, Ministry of Transport and Port Authority of Thailand.
A Comparison between Demand and Capacity In Laem Chabang Port

Unit: TEU

Growth 8%
10.8 million TEU/year

Growth 5%
7.4 million TEU/Year


Capacity
D1+D2+D3
Actual Throughput
Forecast 8%
Forecast 5%

Fiscal Year

Terminal of Phase III

Comparison between Demand and Capacity In Laem Chabang Port

7.4 million TEU/Year

10.8 million TEU/year

Growth 8%

Growth 5%
Laem Chabang Port (LCP) Development Project (Phase 3)

**Purpose**
- To serve the increasing throughput in the future.
- To strengthen the LCP’s role as a Gateway Port of the Mekong Sub-Region.
Laem Chabang Port (LCP) Development Project (Phase 3)

2011-2016

Feasibility study and Detail Design

2018 - 2021

Construction

2020

Bidding for private sectors to participate in investing superstructures and operating terminals

Operation Year (The First Terminal): 2021
### Laem Chabang Port’s Capacity

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Phase 1+2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Terminal</td>
<td>11.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Ro/Ro Terminal</td>
<td>1.98</td>
<td>1.0</td>
</tr>
<tr>
<td>Rail Transfer Capacity Available</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Coastal Terminal</td>
<td>0.6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Unit: Million TEUs
Laem Chabang Port
Gateway to South East Asia

THE END